



MEDICAL OFFICE SURVEY ON PATIENT SAFETY CULTURE



2014 USER COMPARATIVE DATABASE REPORT



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**PATIENT
SAFETY**

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Medical Office Survey on Patient Safety Culture: 2014 User Comparative Database Report

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<http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/medical-office/2014/index.html>.

Executive Summary

The *Medical Office Survey on Patient Safety Culture* is an expansion of AHRQ's *Hospital Survey on Patient Safety Culture* to the medical office setting. The medical office survey is designed to measure the culture of patient safety in medical offices from the perspective of providers and staff. The *Medical Office Survey on Patient Safety Culture 2014 User Comparative Database Report* consists of data from 935 medical offices and 27,103 medical office staff respondents who completed the survey between November 2011 and November 2013.

This comparative database report was developed as a tool for the following purposes:

- **Comparison**—To allow medical offices to compare their patient safety culture survey results with other medical offices.
- **Assessment and Learning**—To provide data to medical offices to facilitate internal assessment and learning in the patient safety improvement process.
- **Supplemental Information**—To provide supplemental information to help medical offices identify their strengths and areas with potential for improvement in patient safety culture.

Survey Content

The medical office survey includes 38 items that measure 10 composites of organizational culture pertaining to patient safety:

1. Communication About Error.
2. Communication Openness.
3. Office Processes and Standardization.
4. Organizational Learning.
5. Overall Perceptions of Patient Safety and Quality.
6. Owner/Managing Partner/Leadership Support for Patient Safety.
7. Patient Care Tracking/Followup.
8. Staff Training.
9. Teamwork.
10. Work Pressure and Pace.

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.

Survey Administration Statistics

- A total of 935 medical offices submitted data for the 2014 report.
- The average medical office response rate was 64 percent, with an average of 29 completed surveys per medical office.

Characteristics of Participating Medical Offices

- Database medical offices vary in number of providers and specialties.
- Most medical offices (83 percent) had fully implemented electronic medical/health records.
- More than two-thirds (69 percent) of medical offices were owned by a hospital or health system.

Characteristics of Respondents

- There were 27,103 medical office respondents.
- The top three staff positions of respondents were:
 - Other clinical staff or clinical support staff (34 percent).
 - Administrative or clerical staff (20 percent).
 - Registered nurse (RN), licensed vocational nurse (LVN), or licensed practical nurse (LPN) (15 percent).
- Nearly one-fourth of staff (24 percent) had worked at their medical office for 11 years or more.
- Most respondents (61 percent) worked between 33 and 40 hours per week.

Areas of Strength for Most Medical Offices

The two areas of strength or composites with the highest average percent positive responses were¹:

1. ***Teamwork (average 86 percent positive)***—the extent to which the office has a culture of teamwork, mutual respect, and close working relationships among staff and providers.
2. ***Patient Care Tracking/Follow-up (average 86 percent positive)***—the extent to which 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.

Areas With Potential for Improvement for Most Medical Offices

1. ***Work Pressure and Pace (average 50 percent positive)***—the extent to which there are enough staff and providers to handle the office patient load, and the office work pace is not hectic. This composite had the lowest average percent positive response.
2. ***Communication Openness (average 68 percent positive)***—the extent to which 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.

¹Percent positive is the percentage of positive responses (e.g., Agree, Strongly agree) to positively worded items (e.g., “Staff in this office follow standardized processes to get tasks done”) or negative responses (e.g., Disagree, Strongly disagree) to negatively worded items (e.g., “This office is more disorganized than it should be”).

Results by Medical Office Characteristics

Number of Providers

- Medical offices with *one provider* had the highest average percent positive scores on all 10 patient safety culture composites; the greater the number of providers, the lower the average percent positive score across composites.
- Percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very good”) were typically higher for medical offices with fewer providers.
- Medical offices with *one provider* had the highest percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (75 percent); medical offices with *20 or more providers* had the lowest (53 percent).

Single vs. Multi-Specialty

- *Single specialty* medical offices were more positive than *Multi-specialty* medical offices on all 10 patient safety culture composites.
- *Single specialty* medical offices had higher percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very good”).
- *Single specialty* medical offices had a higher percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (70 percent) than *Multi-specialty* medical offices (65 percent).

Single Specialty

- Medical offices that only specialized in *Pediatrics* had the highest average percent positive score on all 10 patient safety culture composites (79 percent); *Hematology* had the lowest (68 percent).
- Medical offices that only specialized in *Pediatrics* had the highest Overall Rating on Patient Safety (those responding “Excellent” or “Very good”) (76 percent); *Hematology* and *Internal Medicine* had the lowest (64 percent).

Ownership

- *Hospital or health system* owned medical offices had the highest average percent positive response across the composites (75 percent); *University/Medical School/Academic Medical Institution* had the lowest (69 percent).
- *Hospital or health system* owned medical offices had the highest percent positive scores (those responding “Excellent” or “Very good”) for all five Overall Ratings on Quality.
- *Hospital or health system* owned medical offices had the highest Overall Rating on Patient Safety (those responding “Excellent” or “Very good”) (71 percent); *University/Medical School/Academic medical institution* owned medical offices had the lowest (59 percent).

Geographic Region

- *South Atlantic* medical offices had the highest average percent positive response across patient safety culture composites (77 percent); *New England/Mid-Atlantic* had the lowest (67 percent).
- *South Atlantic* medical offices had the highest percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very good”).
- *South Atlantic* medical offices had the highest percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (75 percent). *New England/Mid-Atlantic* medical offices had the lowest (55 percent).

Results by Respondent Characteristics

Staff Position

- *Management* had the highest average percent positive response across the composites (84 percent); *Nurses (RN/LVN/LPN)* had the lowest (71 percent).
- *Management* had the highest percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very Good”).
- *Management* had the highest percentage who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (83 percent); *Nurses (RN/LVN/LPN)* had the lowest (64 percent).

Tenure in Medical Office

- Respondents with *less than 1 year* in their current medical office had the highest average percent positive response across the composites (78 percent); respondents with *1 year to less than 6 years* (72 percent) had the lowest.
- Respondents with *less than 1 year* or *more than 11 years* in their current medical office had the highest percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very Good”).
- Respondents with *less than 1 year* in their current medical office had the highest percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (70 percent); respondents with *11 years or more* in their current medical office had the second highest (69 percent).

Action Planning for Improvement

The delivery of survey results is not the *end point* in the survey process; it is just the *beginning*. Often, the perceived failure of surveys to create lasting change is actually due to faulty or nonexistent action planning or survey followup.

Seven steps of action planning are provided to give medical offices guidance on next steps to take to turn their survey results into actual patient safety culture improvement:

1. Understand your survey results.
2. Communicate and discuss the survey results.
3. Develop focused action plans.
4. Communicate action plans and deliverables.
5. Implement action plans.
6. Track progress and evaluate impact.
7. Share what works.

Purpose and Use of This Report

In response to requests from medical offices interested in comparing results with those of other medical offices on the *Medical Office Survey on Patient Safety Culture*, the Agency for Healthcare Research and Quality established the Medical Office Survey on Patient Safety Culture Comparative Database. The first medical office survey comparative database report was released in 2012 and consisted of results from 934 medical offices and 23,679 staff respondents.

The *Medical Office Survey on Patient Safety Culture 2014 User Comparative Database Report* consists of data from 935 medical offices and 27,103 staff respondents.

This comparative database report was developed as a tool for the following purposes:

- **Comparison**—To allow medical offices to compare their patient safety culture survey results with other medical offices.
- **Assessment and Learning**—To provide data to medical offices to facilitate internal assessment and learning in the patient safety improvement process.
- **Supplemental Information**—To provide supplemental information to help medical offices identify their strengths and areas of potential improvement in patient safety culture.

This report presents statistics (averages, standard deviations, minimum and maximum scores, and percentiles) on the patient safety culture composites and items from the survey.

Appendixes A and B present overall results by medical office characteristics (number of providers, single vs. multi-specialty, specialty, ownership, and region) and respondent characteristics (staff position and tenure in medical office).

Chapter 1. Introduction

Patient safety is a critical component of health care quality. As medical offices continually strive to improve, there is growing recognition of the importance of establishing a culture of patient safety. Achieving a culture of patient safety requires an understanding of the values, beliefs, and norms about what is important in a medical office and which attitudes and behaviors related to patient safety are supported, rewarded, and expected.

Survey Content

Recognizing the need for a measurement tool to assess the culture of patient safety in medical offices, the Agency for Healthcare Research and Quality (AHRQ) funded the development of the *Medical Office Survey on Patient Safety Culture*. This work is an extension of research used to develop the *Hospital Survey on Patient Safety Culture*.

Developers reviewed research pertaining to safety, patient safety, health care quality, ambulatory medicine, medical errors, error reporting, safety climate and culture, and organizational climate and culture. In addition, they reviewed existing medical office surveys. The researchers also consulted more than two dozen experts in the field of medical office practice and patient safety and many medical office providers and staff for help in identifying key topics and issues. Based on these activities, the researchers identified a potential list of composites to include in the survey.

The survey was pilot tested and revised, and AHRQ released it in 2009. It was designed to assess medical office staff opinions about patient safety issues, medical error, and event reporting. The survey includes 38 items that measure 10 composites of patient safety culture. In addition to the composite items, 14 items measure how often medical offices have problems exchanging information with other settings and other patient safety and quality issues. Each of the 10 patient safety culture composites is listed and defined in Table 1-1.

Table 1-1. Patient Safety Culture Composites and Definitions

Patient Safety Culture Composite	Definition: <i>The extent to which....</i>
1. Communication About Error	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.

Table 1-1. Patient Safety Culture Composites and Definitions (continued)

Patient Safety Culture Composite	Definition: <i>The extent to which...</i>
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/Follow-up	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 provides staff with effective on-the-job training, trains staff on new processes, and does not assign staff 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.

The survey also includes questions that ask respondents to rate their medical office in five areas of health care quality (patient centered, effective, timely, efficient, and equitable) and to provide an overall patient safety rating. In addition, respondents are asked to provide limited background demographic information.

The survey’s toolkit materials are available at the AHRQ Web site (<http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/medical-office/index.html>) and include the survey, survey items and dimensions, user’s guide, feedback report template, information about a Data Entry and Analysis Tool, and a Medical Office Patient Safety Improvement Resource List. The toolkit provides medical offices with the basic knowledge and tools needed to conduct a patient safety culture assessment and suggestions for using the data.

The *Medical Office Survey on Patient Safety Culture* is available in Spanish on the AHRQ Web site. The Spanish translation is designed for U.S. Spanish-speaking respondents from different countries. Information for translators and translation guidelines are available for download at the AHRQ Web site (<http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/transguide.html>).

Data Limitations

The survey results presented in this report represent the largest known compilation of medical office patient safety culture survey data currently available and therefore provide a useful reference for comparison. However, several limitations to these data should be kept in mind.

First, the medical offices that submitted data to the database are not a statistically selected sample of all U.S. medical offices, since only medical offices that administered the survey on their own and were willing to submit their data for inclusion in the database are represented. To provide a basic comparison of the database medical offices with these medical office population estimates, Table 1-2 shows the geographic distribution of the medical offices in the AHRQ *Medical Office Survey on Patient Safety Culture* database.ⁱⁱ This distribution is compared with the distribution of physicians' offices based on the 2007 U.S. Economic Census and the National Ambulatory Medical Care Survey (NAMCS) estimates of the number of office-based medical practices in 2005-2006.

The table shows that the 935 AHRQ database medical offices represent less than 1 percent of the estimated population of medical offices. In addition, database medical offices overrepresent the South and Midwest regions and underrepresent medical offices in the West and Northeast.

Second, medical offices that administered the survey were not required to undergo any training and administered the survey in different ways. Some medical offices used a paper-only survey, others used Web-only surveys, and others used a combination of these two methods to collect the data. It is possible that these different modes could lead to differences in survey responses; further research is needed to determine whether and how different modes affect the results.

Finally, the data medical offices submitted have been cleaned for blank records (where responses to all survey items were missing or "Don't know" with the exception of demographic items) and straight-lining (where responses to all survey items in a section were the same even though at least one item was negatively worded). Otherwise, data are presented as submitted. No additional attempts were made to verify or audit the accuracy of the data submitted.

Table 1-2. Distribution of AHRQ Database Medical Offices (2014) Compared With U.S. Economic Census (2007) and NAMCS (2005-2006) Data by Region

Census Region	AHRQ Medical Office Survey on Patient Safety Culture Database Medical Offices (2014)		U.S. Economic Census, Offices of Physicians (2007)		NAMCS Office-Based Medical Practices (2005-2006)	
	Number	Percent	Number	Percent	Number	Percent
South	479	51%	84,424	38%	60,700	37%
Northeast	60	6%	44,605	20%	36,300	22%
Midwest	370	40%	38,951	18%	30,100	18%
West	26	3%	52,151	24%	36,600	22%
TOTAL	935	100%	220,131	100%	163,700	100%

Note: Percentages may not add to exactly 100 percent due to rounding. States are categorized into regions as follows: Northeast: CT, ME, MA, NH, NJ, NY, PA, RI, VT; Midwest: IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI; South: AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV; West: AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY.

ⁱⁱ Geographic distribution is based on Census Bureau regions (see https://www.census.gov/geo/maps-data/maps/docs/reg_div.txt).

Chapter 2. Survey Administration Statistics

This chapter presents descriptive information on how the 2014 database medical offices administered the survey.

Highlights

- The 2014 database consists of data from 27,103 medical office staff respondents from 935 participating medical offices.
- The average medical office response rate was 64 percent, with an average of 29 completed surveys per medical office.

The 2014 database consists of survey data from 935 medical offices with a total of 27,103 medical office providers and staff respondents. Participating medical offices administered the medical office survey to their providers and staff between November 2011 and November 2013 and voluntarily submitted their data for inclusion in the database.

Overall response rate statistics for medical offices included in the 2014 database are shown in Table 2-1. An average of 29 completed surveys were submitted per medical office (range: 5 to 725), with an average medical office response rate of 64 percent (range: 3 to 100 percent).

Table 2-1. Overall Response Rate Statistics—2014 Database Medical Offices

Response Rate Information	Statistic
Number of respondents	27,103
Number of surveys administered	45,259
Overall response rate	60%
Average number of respondents per medical office (range: 5 to 725)	29
Average number of surveys administered per medical office (range: 5 to 1,849)	60
Overall average medical office response rate (range: 3% to 100%)	64%

Most medical offices administered the survey by Web only (83 percent), as shown in Table 2-2; however, paper-only administration had the highest average response rate (83 percent), as shown in Table 2-3.

Table 2-2. Survey Administration Mode Statistics – 2014 Database Medical Offices

Survey Administration Mode	Database Medical Offices		Database Respondents	
	Number	Percent	Number	Percent
Paper only	122	13%	2,007	7%
Web only	777	83%	22,959	85%
Both paper and Web	36	4%	2,137	8%
Total	935	100%	27,103	100%

Table 2-3. Average Response Rate by Survey Administration Mode—2014 Database Medical Offices

Survey Administration Mode	Average Medical Office Database Response Rate
Paper only	83%
Web only	61%
Both paper and Web	53%

Chapter 3. Medical Office Characteristics

This chapter presents information about the distribution of database medical offices by number of providers, single specialty vs. multi-specialty, specialty, implementation status of electronic tools, majority ownership, and region. Some medical offices did not provide complete medical office information and therefore are shown as missing in the tables in this chapter.

Highlights

- Database medical offices vary in number of providers and specialties.
- Most medical offices (83 percent) had fully implemented electronic medical/health records.
- More than two-thirds (69 percent) of medical offices were owned by a hospital or health system.

Number of Providers

Table 3-1 shows the distribution of medical offices and respondents by number of providers. More than three-fourths (79 percent) of database medical offices had fewer than 10 providers, but they account for just over half (53 percent) of the database respondents.

Table 3-1. Number of Providers: Distribution of 2014 Database Medical Offices

Number of Providers	Database Medical Offices		Database Respondents	
	Number	Percent	Number	Percent
1	59	7%	440	3%
2	116	14%	952	6%
3	119	14%	1,314	8%
4-9	376	44%	6,125	36%
10-13	67	8%	1,868	11%
14-19	41	5%	1,352	8%
More than 19	78	9%	5,062	30%
Total	856	100%	17,113	100%
Missing	79		9,990	

Note: Only 856 medical offices provided information on the number of providers. Percentages may not add to exactly 100 percent due to rounding.

Single vs. Multi-Specialty

As shown in Table 3-2, most medical offices (61 percent) were single specialty. But most respondents were from multi-specialty medical offices.

Table 3-2. Single Specialty vs. Multi-Specialty: Distribution of 2014 Database Medical Offices

Single vs. Multi-Specialty	Database Medical Offices		Database Respondents	
	Number	Percent	Number	Percent
Single specialty	574	61%	8,503	31%
Multi-specialty	361	39%	18,600	69%
Total	935	100%	27,103	100%

Specialty

The 935 medical offices represent a wide range of specialties, with most categorized as Family Practice/Family Medicine (391 offices) (Table 3-3).

Table 3-3. Specialty: Distribution of 2014 Database Medical Offices

Specialty	Number of Medical Offices	Specialty	Number of Medical Offices
Allergy/Immunology	31	Nuclear Medicine	3
Anesthesiology	9	OB/GYN or GYN	132
Cardiology	78	Ophthalmology	24
Child Psychiatry	10	Orthopedics	66
Dermatology	38	Otolaryngology	27
Diagnostic Radiology	22	Pathology – Anatomic/Clinical	4
Emergency Medicine	26	Pediatrics	197
Endocrinology/Metabolism	33	Physical Medicine & Rehabilitation	70
Family Practice/Family Medicine	391	Psychiatry	34
Gastroenterology	40	Public Health & Rehabilitation	28
General Practice	95	Pulmonary Medicine	40
General Preventive Medicine	32	Radiology	53
General Surgery	31	Rheumatology	15
Geriatrics	16	Surgery (All)	67
Hematology/Oncology	38	Urology	28
Internal Medicine	218	Vascular Medicine	17
Nephrology	13	Other	212
Neurology	41		

Note: The total number of medical offices will not necessarily sum to 935 as some medical offices may categorize themselves as more than one type of specialty.

Implementation of Electronic Tools

Most medical offices had fully implemented four of the five computer-based electronic tools (Table 3-4). Electronic appointment scheduling was the electronic tool most fully implemented across medical offices (89 percent); electronic ordering of tests, imaging, or procedures and electronic access to patients' test or imaging results were least implemented (63 percent).

Table 3-4. Implementation Status of Electronic Tools: Distribution of 2014 Database Medical Offices

Electronic Tools	Implementation Status					
	Not Implemented		Implementation in Process		Fully Implemented	
	Number	Percent	Number	Percent	Number	Percent
Electronic appointment scheduling	70	8%	28	3%	784	89%
Electronic ordering of medications	84	10%	74	8%	724	82%
Electronic ordering of tests, imaging, or procedures	240	27%	87	10%	555	63%
Electronic access to your patients' test or imaging results	232	26%	94	11%	556	63%
Electronic medical/health records (EMR/EHR)	76	9%	74	8%	732	83%

Note: Only 882 medical offices provided data on implementation status of electronic tools. Percentages may not add to exactly 100 percent due to rounding. Results are at the medical office level.

Ownership

As shown in Table 3-5, more than two-thirds of medical offices were owned by a hospital or health system (69 percent).

Table 3-5. Majority Ownership: Distribution of 2014 Database Medical Offices

Majority Ownership	Database Medical Offices		Database Respondents	
	Number	Percent	Number	Percent
Provider(s) and/or physician(s)	65	7%	1,386	5%
Hospital or health system	647	69%	11,965	44%
University or academic medical center	145	16%	3,868	14%
Federal, State, or local government	54	6%	9,544	35%
Other	24	3%	340	1%
Total	935	100%	27,103	100%

Note: Percentages may not add to exactly 100 percent due to rounding.

Geographic Region

Table 3-6 shows the distribution of database medical offices by geographic region. The largest proportions of database medical offices are from the South Atlantic (43 percent) and East North Central regions (39 percent).

Table 3-6. Geographic Region: Distribution of 2014 Database Medical Offices and Respondents

Region	Database Medical Offices		Database Respondents	
	Number	Percent	Number	Percent
New England/Mid-Atlantic	60	6%	2,177	8%
South Atlantic	406	43%	9,345	34%
East North Central	362	39%	7,263	27%
East South Central	43	5%	1,019	4%
West Central	38	4%	3,706	14%
Mountain	12	1%	2,017	7%
Pacific	14	1%	1,576	6%
Total	935	100%	27,103	100%

Note: Percentages may not add to exactly 100 percent due to rounding. States are categorized into regions as follows: New England/Mid-Atlantic: CT, ME, MA, NH, NJ, NY, PA, RI, VT; South Atlantic: DE, DC, FL, GA, MD, NC, SC, VA, WV; East North Central: IL, IN, MI, OH, WI; East South Central: AL, KY, MS, TN; West Central: AR, IA, KS, LA, MN, MO, NE, ND, OK, SD, TX; Mountain: AZ, CO, ID, MT, NV, NM, UT, WY; Pacific: AK, CA, HI, OR, WA.

Chapter 4. Characteristics of Respondents

Highlights

- The top three staff positions of respondents were:
 - Other clinical staff or clinical support staff (34 percent)
 - Administrative or clerical staff (20 percent)
 - Registered nurse (RN), licensed vocational nurse (LVN), or licensed practical nurse (LPN) (15 percent).
- Nearly one-fourth of staff (24 percent) had worked at their medical office for 11 years or more.
- Most respondents (61 percent) worked between 33 and 40 hours per week.

This chapter describes the respondents within the participating medical offices. Respondents from medical offices that omitted one of these questions, or those who did not respond, are shown as missing in the tables and are excluded from total percentages in this chapter.

Staff Position

More than one-third (34 percent) of respondents selected “Other clinical staff or clinical support staff” as their staff position, followed by “Administrative or clerical staff” (20 percent), and “Registered Nurse (RN), Licensed Vocational Nurse (LVN), Licensed Practical Nurse (LPN)” (15 percent) (Table 4-1).

Table 4-1. Staff Position: Distribution of 2014 Database Medical Office Respondents

Medical Office Staff Position	Database Respondents	
	Number	Percent
Physician (M.D. or D.O.)	2,374	9%
Physician assistant, nurse practitioner, clinical nurse specialist, nurse midwife, advanced practice nurse, etc.	984	4%
Management	2,727	10%
Administrative or clerical staff	5,164	20%
Registered Nurse (RN), Licensed Vocational Nurse (LVN), Licensed Practical Nurse (LPN)	3,904	15%
Other clinical staff or clinical support staff	8,968	34%
Other position	2,181	8%
Total	26,302	100%
Missing	801	
Overall	27,103	

Additional Characteristics of Respondents

Tables 4-2 and 4-3 show the distribution of respondents by tenure and hours worked per week.

Table 4-2. Tenure in Medical Office: Distribution of 2014 Database Medical Office Respondents

Tenure in Medical Office	Database Respondents	
	Number	Percent
Less than 2 months	421	2%
2 months to less than 1 year	2,269	13%
1 year to less than 3 years	3,608	21%
3 years to less than 6 years	3,433	20%
6 years to less than 11 years	3,152	19%
11 years or more	4,004	24%
Total	16,887	100%
Missing	10,216	
Overall total	27,103	

Note: Percentages may not add to exactly 100 percent due to rounding.

Table 4-3. Hours Worked per Week: Distribution of 2014 Database Medical Office Respondents

Hours Worked per Week in Medical Office	Database Respondents	
	Number	Percent
1 to 4 hours	190	1%
5 to 16 hours	646	4%
17 to 24 hours	981	6%
25 to 32 hours	1,218	7%
33 to 40 hours	10,293	61%
41 hours or more	3,600	21%
Total	16,928	100%
Missing	10,175	
Overall total	27,103	

Chapter 5. Overall Results

This chapter presents the overall survey results for the database, showing the average percentage of positive responses across the database medical offices on each of the survey's items and composites. Reporting the average across medical offices ensures that each medical office receives an equal weight that contributes to the overall average.

Reporting the data at the medical office level in this way is important because culture is considered to be a group characteristic and is not considered to be a solely individual characteristic. An alternative method would be to report a straight percentage of positive responses across all respondents, but this method would give greater weight to respondents from larger medical offices.

Highlights

- The areas of strength or the composites with the highest average percent positive responses were:
 - *Teamwork*—(average 86 percent positive)
 - *Patient Care Tracking/Follow-up*—(average 86 percent positive)
- The areas with potential for improvement or the composites with the lowest average percent positive responses were:
 - *Work Pressure and Pace*—(average 50 percent positive)
 - *Communication Openness*—(average 68 percent positive)
- On average across medical offices, most respondents (68 percent) gave their medical office an Overall Patient Safety rating of “Excellent” (28 percent) or “Very good” (40 percent).

Composite and Item-Level Charts

This section provides the overall item and composite-level results. The methods for calculating the percent positive scores at the item and composite levels are described in the Notes section of this report.

Composite-Level Results

Chart 5-1 shows the average percent positive response for each of the 10 patient safety culture composites across medical offices in the database. The patient safety culture composites are shown in order from the highest average percent positive response to the lowest.

Areas of Strength

- **Teamwork (average 86 percent positive)**—the office has a culture of teamwork, mutual respect, and close working relationships among staff and providers.
- **Patient Care Tracking/Follow-up(average 86 percent positive)**—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.

Areas With Potential for Improvement

- **Work Pressure and Pace (average 50 percent positive)**—there are enough staff and providers to handle the patient load, and the office work pace is not hectic.
Communication Openness (average 68 percent positive)—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.

Item-Level Results

Chart 5-2 shows the average percent positive response for each of the 38 survey composite items. The items are grouped by the patient safety culture composite they are intended to measure. Within each composite, the items are presented in the order in which they appear in the survey. Chart 5-3 shows the item-level average ratings on a list of patient safety and quality issues, and Chart 5-4 shows the item-level average ratings on information exchange with other settings.

Area of Strength for the Patient Safety Culture Composite Items

- The composite item with the highest average percent positive response (91 percent positive) was from the patient safety culture composite *Patient Care Tracking/Follow-up*: (D9) “This office follows up with patients who need monitoring.”

Area With Potential for Improvement for the Patient Safety Culture Composite Items

- The composite item with the lowest average percent positive response (37 percent positive) was from the patient safety culture composite *Work Pressure and Pace*: (C3) “In this office, we often feel rushed when taking care of patients.” (That is, an average of only 37 percent of respondents in each medical office *Strongly disagreed* or *Disagreed* with this negatively worded item.)

Area of Strength for Patient Safety and Quality Items

- The Patient Safety and Quality item with the highest average percent positive response (98 percent positive) was: (A2) “The wrong chart/medical record was used for a patient.” (That is, an average of 98 percent of respondents in each medical office indicated that the frequency of this event occurring was monthly or less in the past 12 months.)

Area With Potential for Improvement for Patient Safety and Quality Items

- The Patient Safety and Quality item with the lowest average percent positive response (59 percent positive) was: (A6) “A pharmacy contacted our office to clarify or correct a prescription.”

Overall Ratings

Chart 5-5 shows the results from the five items on quality, and Chart 5-6 shows results for an Overall Rating on Patient Safety. On average across medical offices, the area of greatest strength was (G1e) providing equitable care to patients, with 82 percent of medical office staff giving their medical office a rating of “Excellent” (55 percent) or “Very good” (27 percent).

The area with most potential for improvement was (G1c) providing timely health care to patients, with only 56 percent of medical office staff giving their medical office a rating of “Excellent” (23 percent) or “Very good” (33 percent).

On average across medical offices, 68 percent of staff gave an Overall Rating on Patient Safety of “Excellent” (28 percent) or “Very good” (40 percent).

Chart 5-1. Composite-Level Average Percent Positive Response—2014 Database Medical Offices



Chart 5-2. Item-Level Average Percent Positive Response—2014 Database Medical Offices (Page 1 of 4)

Survey Items By Patient Safety Culture Composite	Survey Item % Positive Response
1. <u>Teamwork</u>	
1. When someone in this office gets really busy, others help out. (C1)	87%
2. In this office, there is a good working relationship between staff and providers. (C2)	89%
3. In this office, we treat each other with respect. (C5)	84%
4. This office emphasizes teamwork in taking care of patients. (C13)	86%
2. <u>Patient Care Tracking/Follow-up</u>	
1. This office reminds patients when they need to schedule an appointment for preventive or routine care. (D3)	87%
2. This office documents how well our chronic-care patients follow their treatment plans. (D5)	80%
3. Our office follows up when we do not receive a report we are expecting from an outside provider. (D6)	88%
4. This office follows up with patients who need monitoring. (D9)	91%
3. <u>Overall Perceptions of Patient Safety and Quality</u>	
1. Our office processes are good at preventing mistakes that could affect patients. (F2)	86%
2. Mistakes happen more than they should in this office. (F3R)	80%
3. It is just by chance that we don't make more mistakes that affect our patients. (F4R)	81%
4. In this office, getting more work done is more important than quality of care. (F6R)	74%

Note: The item's survey location is shown after the item text. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

Chart 5-2. Item-Level Average Percent Positive Response—2014 Database Medical Offices (Page 2 of 4)

Survey Items By Patient Safety Culture Composite	Survey Item % Positive Response
4. <u>Organizational Learning</u>	
1. When there is a problem in our office, we see if we need to change the way we do things. (F1)	85%
2. This office is good at changing office processes to make sure the same problems don't happen again. (F5)	80%
3. After this office makes changes to improve the patient care process, we check to see if the changes worked. (F7)	76%
5. <u>Staff Training</u>	
1. This office trains staff when new processes are put into place. (C4)	78%
2. This office makes sure staff get the on-the-job training they need. (C7)	77%
3. Staff in this office are asked to do tasks they haven't been trained to do. (C10R)	70%
6. <u>Communication About Error</u>	
1. Staff feel like their mistakes are held against them. (D7R)	61%
2. Providers and staff talk openly about office problems. (D8)	61%
3. In this office, we discuss ways to prevent errors from happening again. (D11)	82%
4. Staff are willing to report mistakes they observe in this office. (D12)	76%

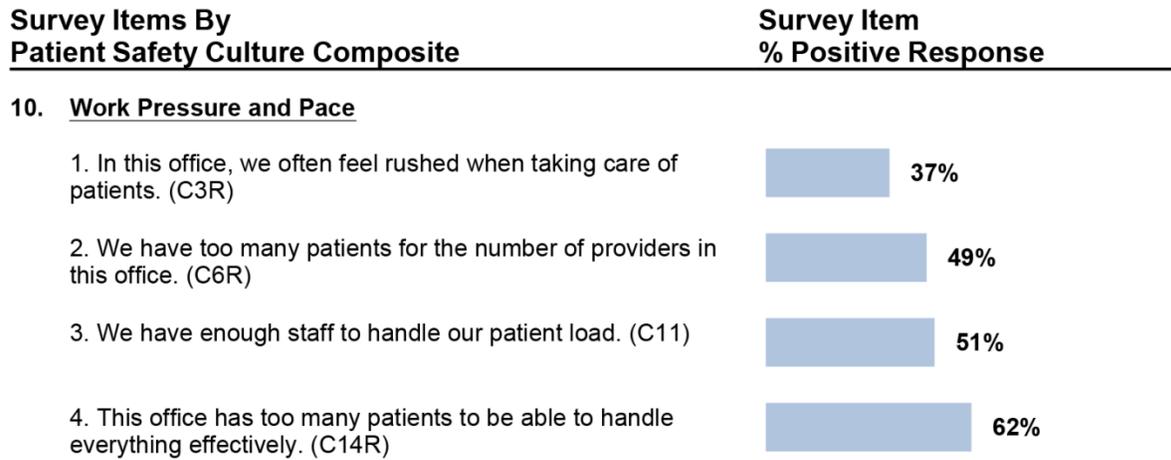
Note: The item's survey location is shown after the item text. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

Chart 5-2. Item-Level Average Percent Positive Response—2014 Database Medical Offices (Page 3 of 4)

Survey Items By Patient Safety Culture Composite	Survey Item % Positive Response
7. <u>Owner/Managing Partner/Leadership Support for Patient Safety</u>	
1. They aren't investing enough resources to improve the quality of care in this office. (E1R)	 52%
2. They overlook patient care mistakes that happen over and over. (E2R)	 83%
3. They place a high priority on improving patient care processes. (E3)	 82%
4. They make decisions too often based on what is best for the office rather than what is best for patients. (E4R)	 62%
8. <u>Office Processes and Standardization</u>	
1. This office is more disorganized than it should be. (C8R)	 66%
2. We have good procedures for checking that work in this office was done correctly. (C9)	 73%
3. We have problems with workflow in this office. (C12R)	 54%
4. Staff in this office follow standardized processes to get tasks done. (C15)	 82%
9. <u>Communication Openness</u>	
1. Providers in this office are open to staff ideas about how to improve office processes. (D1)	 70%
2. Staff are encouraged to express alternative viewpoints in this office. (D2)	 71%
3. Staff are afraid to ask questions when something does not seem right. (D4R)	 73%
4. It is difficult to voice disagreement in this office. (D10R)	 57%

Note: The item's survey location is shown after the item text. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

Chart 5-2. Item-Level Average Percent Positive Response—2014 Database Medical Offices (Page 4 of 4)

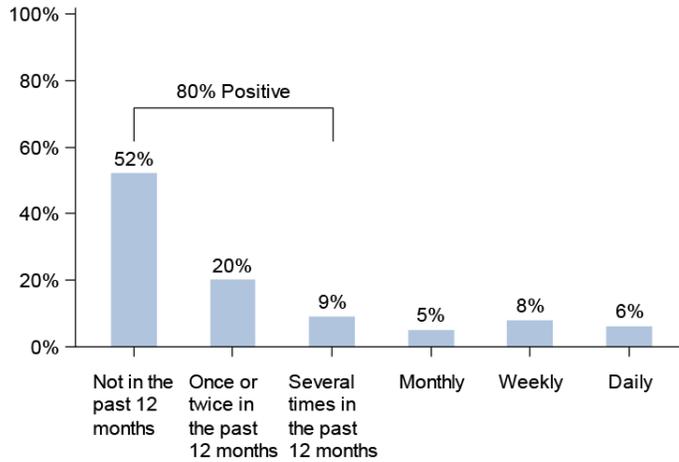


Note: The item’s survey location is shown after the item text. An “R” indicates a negatively worded item, where the percent positive response is based on those who responded “Strongly disagree” or “Disagree,” or “Never” or “Rarely” (depending on the response category used for the item).

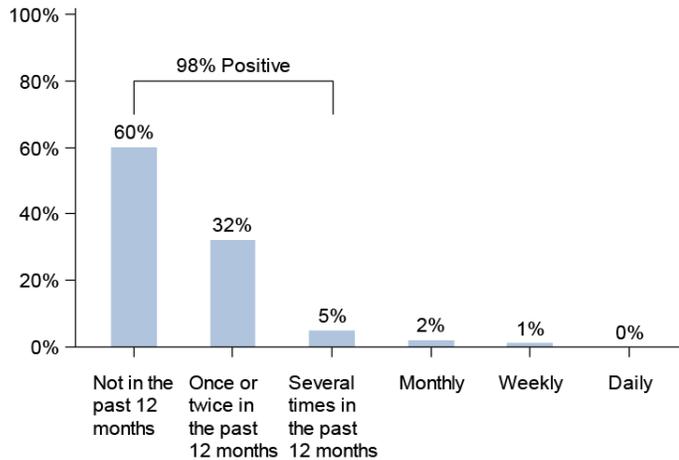
Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues—2014 Database Medical Offices (Page 1 of 5)

In your best estimate, how often did the following things happen in your medical office OVER THE PAST 12 MONTHS?

A1. A patient was unable to get an appointment within 48 hours for an acute/serious problem.



A2. The wrong chart/medical record was used for a patient.

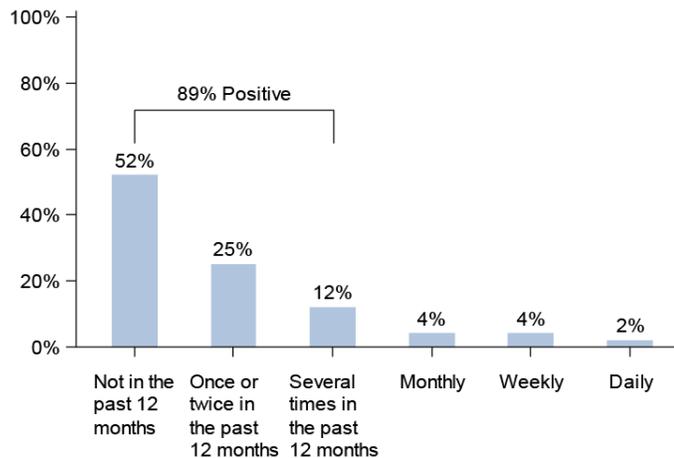


Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

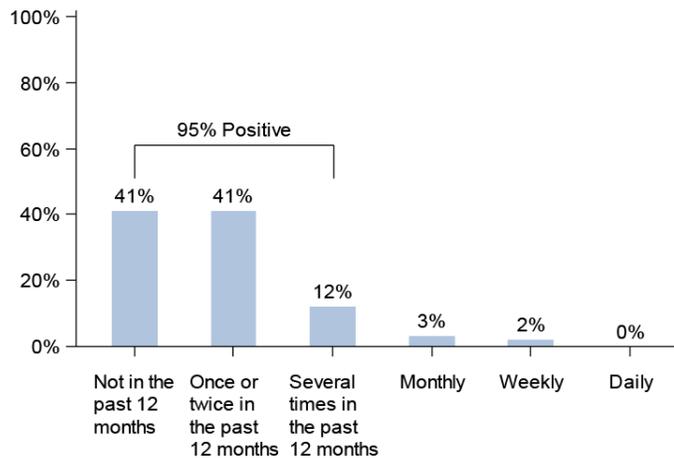
Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues—2014 Database Medical Offices (Page 2 of 5)

In your best estimate, how often did the following things happen in your medical office OVER THE PAST 12 MONTHS ?

A3. A patient's chart/medical record was not available when needed.



A4. Medical information was filed, scanned, or entered into the wrong patient's chart/medical record.

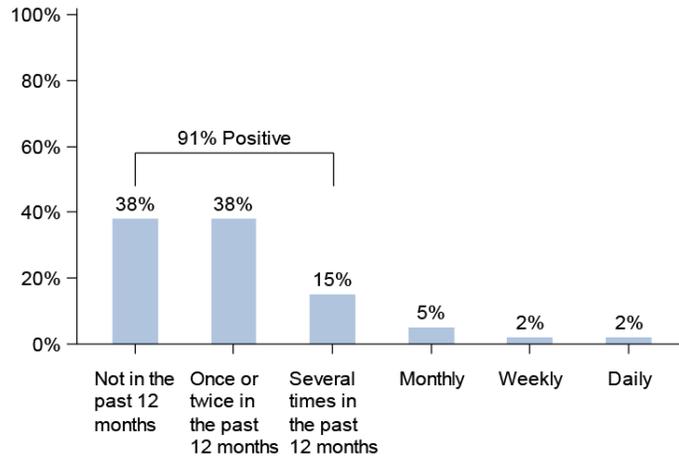


Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

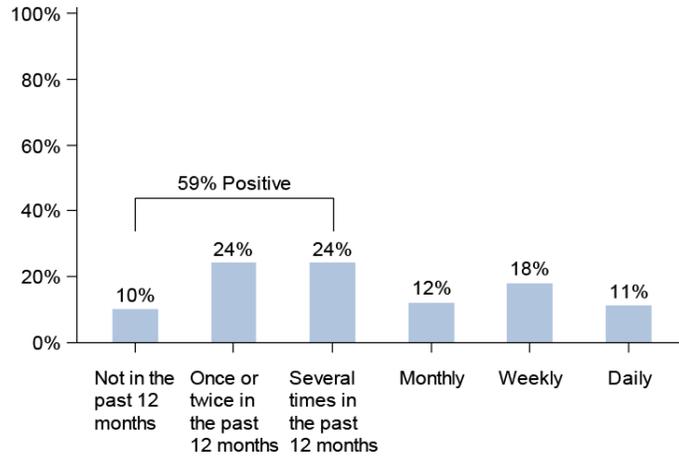
Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues—2014 Database Medical Offices (Page 3 of 5)

In your best estimate, how often did the following things happen in your medical office OVER THE PAST 12 MONTHS?

A5. Medical equipment was not working properly or was in need of repair or replacement.



A6. A pharmacy contacted our office to clarify or correct a prescription.

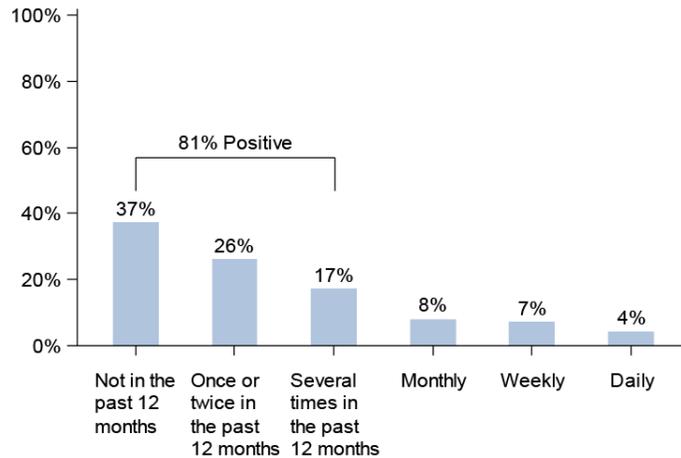


Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

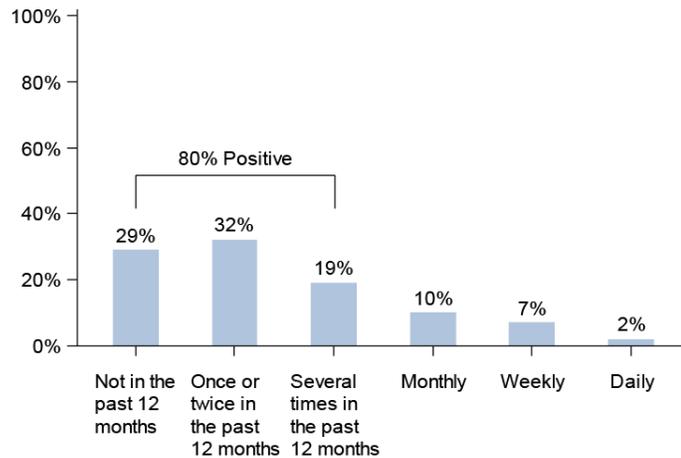
Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues—2014 Database Medical Offices (Page 4 of 5)

In your best estimate, how often did the following things happen in your medical office OVER THE PAST 12 MONTHS ?

A7. A patient's medication list was not updated during his or her visit.



A8. The results from a lab or imaging test were not available when needed.

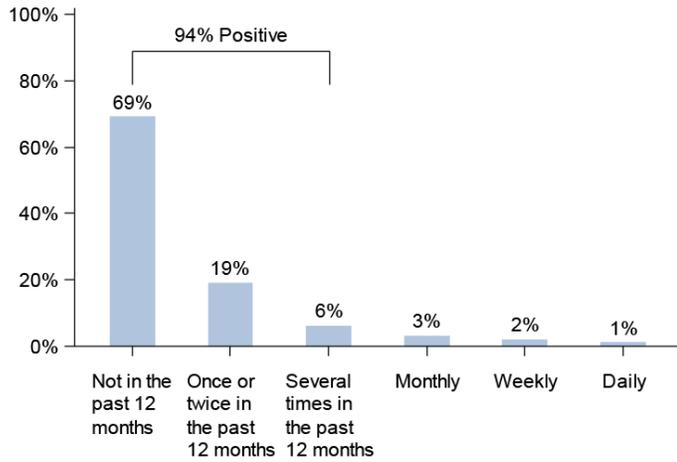


Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues—2014 Database Medical Offices (Page 5 of 5)

In your best estimate, how often did the following things happen in your medical office OVER THE PAST 12 MONTHS ?

A9. A critical abnormal result from a lab or imaging test was not followed up within 1 business day.

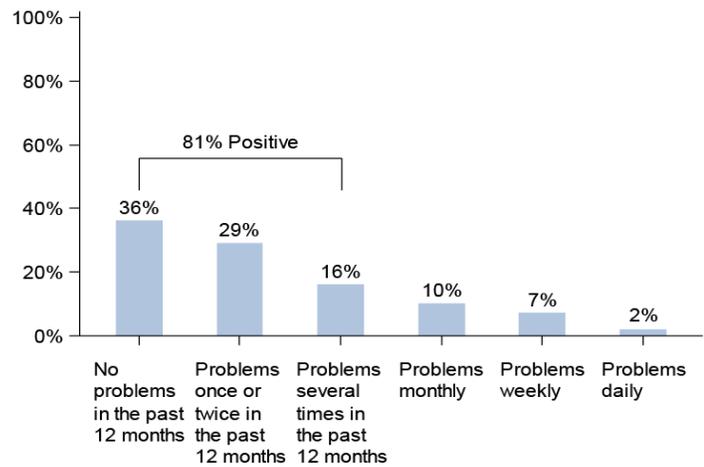


Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

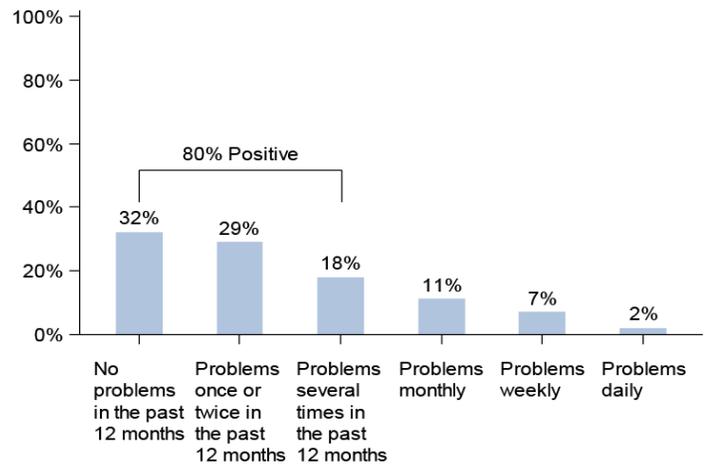
**Chart 5-4. Item-Level Average Ratings on Information Exchange With Other Settings—2014
Database Medical Offices (Page 1 of 3)**

Over the past 12 months, how often has your medical office had problems exchanging accurate, complete, and timely information with:

B1. Outside labs/imaging centers?



B2. Other medical offices/Outside physicians?

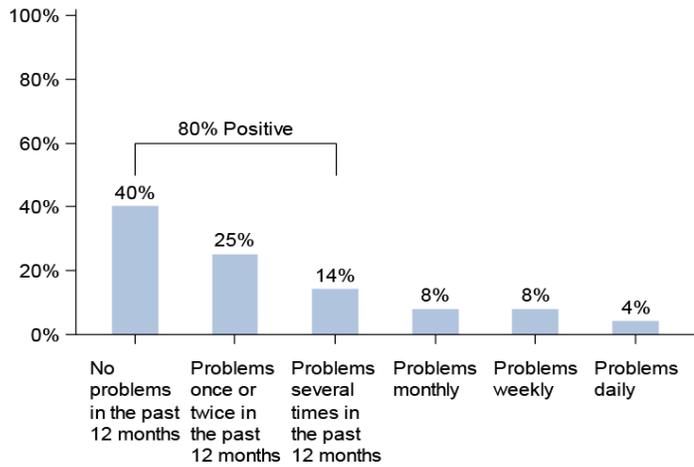


Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

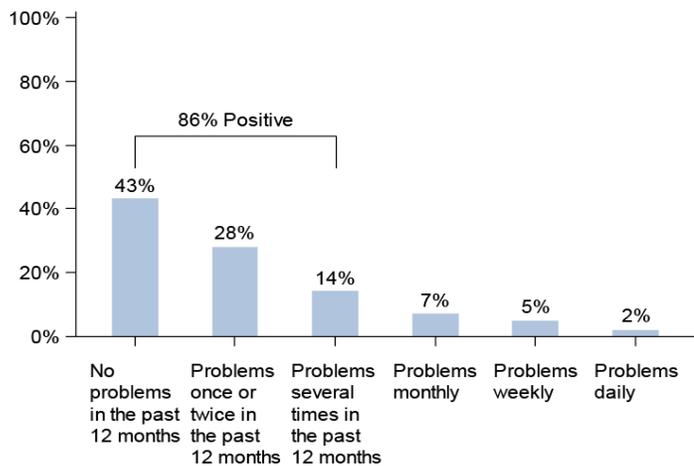
**Chart 5-4. Item-Level Average Ratings on Information Exchange With Other Settings—2014
Database Medical Offices (Page 2 of 3)**

Over the past 12 months, how often has your medical office had problems exchanging accurate, complete, and timely information with:

B3. Pharmacies?



B4. Hospitals?

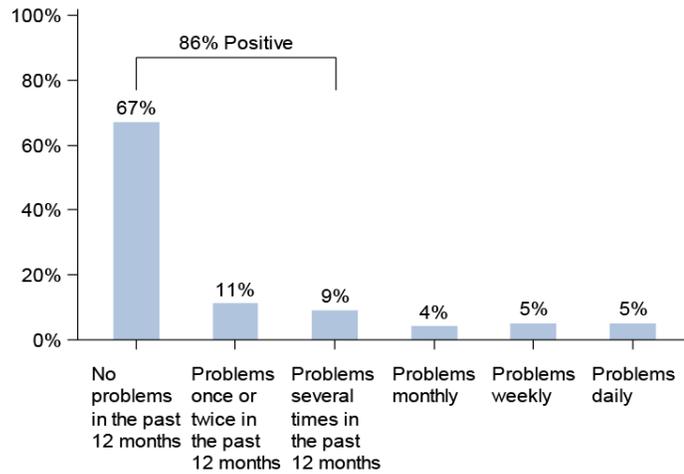


Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

**Chart 5-4. Item-Level Average Ratings on Information Exchange With Other Settings—2014
Database Medical Offices (Page 3 of 3)**

Over the past 12 months, how often has your medical office had problems exchanging accurate, complete, and timely information with:

B5. Other? (Specify)



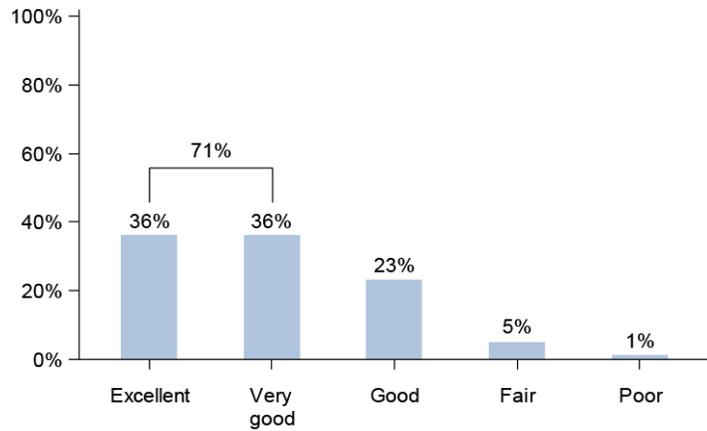
Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

Chart 5-5. Item-Level Average Overall Ratings on Quality—2014 Database Medical Offices (Page 1 of 3)

Overall, how would you rate your medical office on each of the following areas of health care quality?

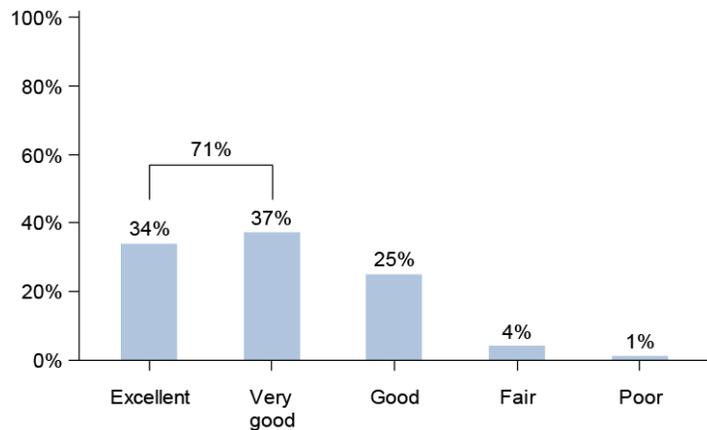
G1a. Patient Centered

Is responsive to individual patient preferences, needs, and values.



G1b. Effective

Is based on scientific knowledge.



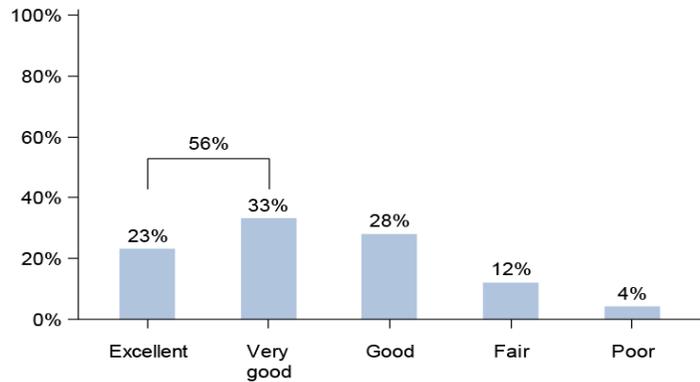
Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices and (2) percentages may not add to 100 percent due to rounding.

Chart 5-5. Item-Level Average Overall Ratings on Quality—2014 Database Medical Offices (Page 2 of 3)

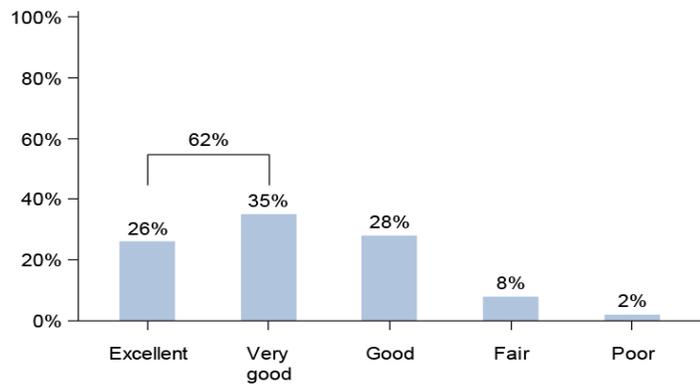
Overall Ratings on Quality and Patient Safety

Overall, how would you rate your medical office on each of the following areas of health care quality?

G1c. Timely
Minimizes waits and potentially harmful delays.



G1d. Efficient
Ensures cost-effective care (avoids waste, overuse, and misuse of services).



Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices and (2) percentages may not add to 100 percent due to rounding.

Chart 5-5. Item-Level Average Overall Ratings on Quality—2014 Database Medical Offices (Page 3 of 3)

Overall, how would you rate your medical office on each of the following areas of health care quality?

G1e. Equitable

Provides the same quality of care to all individuals regardless of gender, race, ethnicity, socioeconomic status, language, etc.

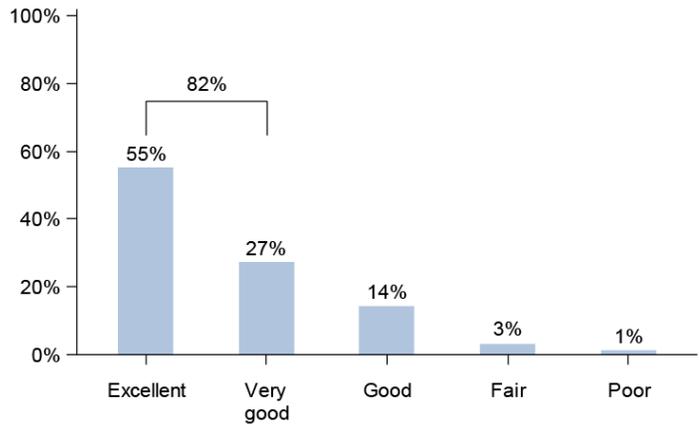
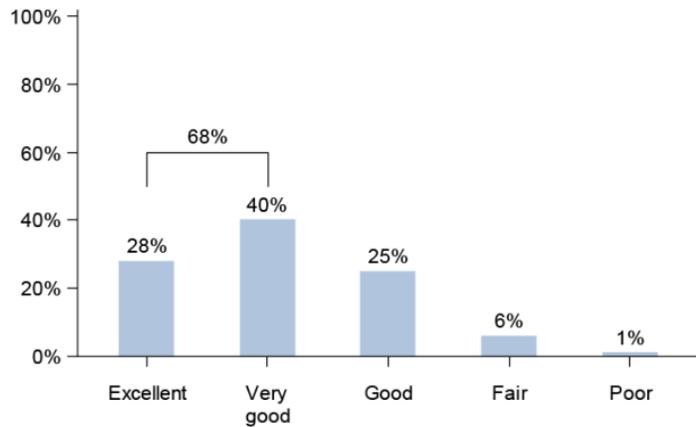


Chart 5-6. Item-Level Average Overall Rating on Patient Safety—2014 Database Medical Offices

G2. Overall Rating on Patient Safety

Overall, how would you rate the systems and clinical processes your medical office has in place to prevent, catch, and correct problems that have the potential to affect patients?



Note: (1) Percentages indicate average percent response for each item response category across the 2014 database medical offices and (2) percentages may not add to 100 percent due to rounding.

Chapter 6. Comparing Your Results

To compare your medical office's survey results with the results from the database, you need to calculate your medical office's percent positive response on the survey's 10 composites and other survey items, including patient safety and quality issues, information exchange with other settings, and ratings on quality and patient safety. The Notes section at the end of this report describes how to calculate these percent positive scores. You can then compare your medical office's results with the database averages and examine the percentile scores to place your medical office's results relative to the distribution of database medical offices.

When comparing your medical office's results with results from the database, keep in mind that the database only provides *relative* comparisons. Even though your medical office's survey results may be better than the database statistics, you may still believe there is room for improvement in a particular area within your medical office in an *absolute* sense.

As you will notice from the database results, there are some patient safety composites that even the highest scoring medical offices could improve on. Therefore, the comparative data provided in this report should be used to supplement your medical office's own efforts toward identifying areas of strength and areas on which to focus patient safety culture improvement efforts.

Highlights

- There was considerable variability in the range of medical office scores (lowest to highest) across the 10 patient safety culture composites and items.
- Many of the items and composites showed a range of positive response from close to 0 to 100 percent.

Description of Comparative Statistics

In addition to the average percent positive scores presented in Chapter 5, a number of other statistics are provided to facilitate comparisons with the database medical offices. A description of each statistic shown in this chapter is provided next.

Average Percent Positive

The comparative results tables in this chapter present the average percent positive scores for each of the 10 patient safety culture composites and for the 51 survey items. These average percent positive scores were calculated by averaging composite-level percent positive scores across all medical offices in the database, as well as averaging item-level percent positive scores across

medical offices. Since the percent positive is displayed as an overall average, scores from each medical office are weighted equally in their contribution to the calculation of the average.ⁱⁱⁱ

Standard Deviation

The standard deviation (s.d.), a measure of the spread or variability of medical office scores around the average, is also displayed. The standard deviation tells you the extent to which medical offices' scores differ from the average:

- If scores from all medical offices were exactly the same, then the average would represent all their scores perfectly and the standard deviation would be zero.
- If scores from all medical offices were very close to the average, then the standard deviation would be small and close to zero.
- If scores from many medical offices were very different from the average, then the standard deviation would be a large number.

When the distribution of medical office scores follows a normal bell-shaped curve (where most of the scores fall in the middle of the distribution, with fewer scores at the lower and higher ends of the distribution), the average, plus or minus the standard deviation, will include about 68 percent of all medical office scores. For example, if an average percent positive score across the database medical office was 70 percent with a standard deviation of 10 percent (and scores were normally distributed), then about 68 percent of all the database medical offices would have scores between 60 and 80 percent.

Statistically “Significant” Differences Between Scores

You may be interested in determining the statistical significance of differences between your scores and the averages in the database, or between scores in various breakout categories (numbers of providers and staff, implementation status of electronic tools, etc). Statistical significance is greatly influenced by sample size; as the number of observations in comparison groups increases, small differences in scores become statistically significant. While a 1 percentage point difference between percent positive scores might be “statistically” significant (that is, not due to chance), the difference is not likely to be meaningful or “practically” significant.

Keep in mind that statistically significant differences are not always important, and nonsignificant differences are not always trivial. We provide the average, standard deviation, range, and percentile information so that you can compare your data with the database in different ways.

Minimum and Maximum Scores

The minimum (lowest) and maximum (highest) percent positive scores are presented for each composite and item. These scores provide information about the range of percent positive scores

ⁱⁱⁱ An alternative method would be to report a straight percentage of positive response across all respondents, but this method would give greater weight to respondents from larger medical offices.

obtained by medical offices in the database and are actual scores from the lowest and highest scoring medical offices. When comparing with the minimum and maximum scores, keep in mind that these scores may represent medical offices that are extreme outliers (indicated by large differences between the minimum score and the 10th percentile score, or between the 90th percentile score and the maximum score).

Percentiles

The 10th, 25th, 50th (or median), 75th, and 90th percentile scores are displayed for the survey composites and items. Percentiles provide information about the distribution of medical office scores. To calculate percentile scores, we ranked all medical office percent positive scores in order from low to high. *A specific percentile score shows the percentage of medical offices that scored at or below a particular score.* For example, the 50th percentile, or median, is the percent positive score where 50 percent of the medical offices scored the same or lower and 50 percent of the medical offices scored higher.

When the distribution of medical office scores follows a normal bell-shaped curve (where most of the scores fall in the middle of the distribution with fewer scores at the lower and higher ends of the distribution), the 50th percentile, or median, will be very similar to the average score. Interpret the percentile scores as shown in Table 6-1.

Table 6-1. Interpretation of Percentile Scores

Percentile Score	Interpretation
10th percentile Represents the lowest scoring medical offices.	10% of medical offices scored the same or lower. 90% of medical offices scored higher.
25th percentile Represents lower scoring medical offices.	25% of medical offices scored the same or lower. 75% of medical offices scored higher.
50th percentile (or median) Represents the middle of the distribution of medical offices.	50% of medical offices scored the same or lower. 50% of medical offices scored higher.
75th percentile Represents higher scoring medical offices.	75% of medical offices scored the same or lower. 25% of medical offices scored higher.
90th percentile Represents the highest scoring medical offices.	90% of medical offices scored the same or lower. 10% of medical offices scored higher.

To compare with the database percentiles, compare your medical office's percent positive scores with the percentile scores for each composite and item. Look for the highest percentile where your medical office's score is *higher* than that percentile.

For example: On survey item 1 in Table 6-2, the 75th percentile score is 49 percent positive, and the 90th percentile score is 62 percent positive.

Table 6-2. Sample Percentile Statistics

			Survey Item % Positive Response						
Survey Item	Average % Positive	s.d.	Min	10th %ile	25th %ile	Median/	75th %ile	90th %ile	Max
						50th %ile			
Item 1	36%	17.43%	8%	10%	25%	35%	49%	62%	96%
If your medical office's score is 55 percent, your score falls here: <div style="display: inline-block; vertical-align: middle; margin-left: 100px;">↑</div>									
If your medical office's score is 65 percent, your score falls here: <div style="display: inline-block; vertical-align: middle; margin-left: 100px;">↑</div>									

- If your medical office's score is 55 percent positive, it falls above the 75th percentile (but below the 90th), meaning that your medical office scored higher than at least 75 percent of the medical offices in the database.
- If your medical office's score is 65 percent positive, it falls above the 90th percentile, meaning your medical office scored higher than at least 90 percent of the medical offices in the database.

Composite and Item-Level Comparative Tables

The comparative results in Tables 6-3 and 6-4 show considerable variability in the range of medical office scores (lowest to highest) across the 10 patient safety culture composites.

Tables 6-5, 6-6, and 6-7 all show substantial variability, with responses ranging from 0 percent to a high score of 100 percent.

Table 6-3. Composite-Level Comparative Results—2014 Database Medical Offices

Patient Safety Culture Composites	Average % Positive	s.d.	Composite % Positive Response						
			Min	10th %ile	25th %ile	Median/50th %ile	75th %ile	90th %ile	Max
1. Teamwork	86%	11.92%	16%	72%	80%	89%	96%	100%	100%
2. Patient Care Tracking/Follow-up	86%	10.69%	30%	72%	81%	88%	94%	100%	100%
3. Overall Perceptions of Patient Safety and Quality	80%	13.88%	15%	62%	72%	82%	91%	96%	100%
4. Organizational Learning	80%	14.93%	7%	60%	72%	82%	92%	98%	100%
5. Staff Training	75%	16.39%	7%	53%	66%	77%	87%	95%	100%
6. Communication About Error	70%	15.75%	15%	49%	60%	70%	81%	90%	100%
7. Owner/Managing Partner/Leadership Support for Safety	70%	16.28%	0%	49%	59%	70%	82%	90%	100%
8. Office Processes and Standardization	69%	16.99%	5%	45%	58%	70%	82%	91%	100%
9. Communication Openness	68%	17.15%	5%	45%	57%	68%	80%	90%	100%
10. Work Pressure and Pace	50%	19.89%	0%	25%	35%	50%	64%	77%	100%

Table 6-4. Item-Level Comparative Results—2014 Database Medical Offices (Page 1 of 4)

Survey Items By Composite	Average % Positive	s.d.	Survey Item % Positive Response								
			Min	10th %ile	25th %ile	Median/50th %ile	75th %ile	90th %ile	Max		
1. Teamwork											
1. When someone in this office gets really busy, others help out. (C1)	87%	13.96%	0%	69%	80%	88%	100%	100%	100%	100%	100%
2. In this office, there is a good working relationship between staff and providers. (C2)	89%	13.26%	0%	71%	83%	92%	100%	100%	100%	100%	100%
3. In this office, we treat each other with respect. (C5)	84%	15.36%	11%	64%	77%	87%	100%	100%	100%	100%	100%
4. This office emphasizes teamwork in taking care of patients. (C13)	86%	14.06%	14%	67%	79%	88%	100%	100%	100%	100%	100%
2. Patient Care Tracking/Follow-up											
1. This office reminds patients when they need to schedule an appointment for preventive or routine care. (D3)	87%	13.93%	0%	69%	80%	89%	100%	100%	100%	100%	100%
2. This office documents how well our chronic-care patients follow their treatment plans. (D5)	80%	18.02%	0%	56%	70%	82%	100%	100%	100%	100%	100%
3. Our office follows up when we do not receive a report we are expecting from an outside provider. (D6)	88%	13.77%	20%	70%	80%	91%	100%	100%	100%	100%	100%
4. This office follows up with patients who need monitoring. (D9)	91%	11.30%	37%	78%	86%	95%	100%	100%	100%	100%	100%
3. Overall Perceptions of Patient Safety and Quality											
1. Our office processes are good at preventing mistakes that could affect patients. (F2)	86%	14.76%	14%	67%	80%	89%	100%	100%	100%	100%	100%
2. Mistakes happen more than they should in this office. (F3R)	80%	17.28%	14%	57%	71%	82%	94%	100%	100%	100%	100%
3. It is just by chance that we don't make more mistakes that affect our patients. (F4R)	81%	15.94%	0%	60%	73%	83%	92%	100%	100%	100%	100%
4. In this office, getting more work done is more important than quality of care. (F6R)	74%	18.07%	11%	50%	63%	75%	87%	100%	100%	100%	100%

Note: The item's survey location is shown after the item text. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

Table 6-4. Item-Level Comparative Results—2014 Database Medical Offices (Page 2 of 4)

Survey Items By Composite	Average % Positive	s.d.	Survey Item % Positive Response								
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max		
4. Organizational Learning											
1. When there is a problem in our office, we see if we need to change the way we do things. (F1)	85%	14.25%	0%	67%	78%	88%	100%	100%	100%	100%	100%
2. This office is good at changing office processes to make sure the same problems don't happen again. (F5)	80%	17.06%	0%	57%	70%	82%	94%	100%	100%	100%	100%
3. After this office makes changes to improve the patient care process, we check to see if the changes worked. (F7)	76%	18.85%	0%	50%	64%	78%	89%	100%	100%	100%	100%
5. Staff Training											
1. This office trains staff when new processes are put into place. (C4)	78%	17.58%	9%	53%	68%	80%	92%	100%	100%	100%	100%
2. This office makes sure staff get the on-the-job training they need. (C7)	77%	18.19%	0%	50%	67%	80%	90%	100%	100%	100%	100%
3. Staff in this office are asked to do tasks they haven't been trained to do. (C10R)	70%	19.77%	0%	43%	58%	71%	83%	95%	100%	100%	100%
6. Communication About Error											
1. Staff feel like their mistakes are held against them. (D7R)	61%	22.57%	0%	31%	44%	60%	78%	92%	100%	100%	100%
2. Providers and staff talk openly about office problems. (D8)	61%	21.19%	0%	33%	47%	60%	75%	88%	100%	100%	100%
3. In this office, we discuss ways to prevent errors from happening again. (D11)	82%	15.95%	17%	60%	73%	83%	95%	100%	100%	100%	100%
4. Staff are willing to report mistakes they observe in this office. (D12)	76%	16.86%	0%	55%	65%	78%	88%	100%	100%	100%	100%

Note: The item's survey location is shown after the item text. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

Table 6-4. Item-Level Comparative Results—2014 Database Medical Offices (Page 3 of 4)

Survey Items By Composite	Average % Positive	s.d.	Survey Item % Positive Response								
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max		
7. Owner/Managing Partner/Leadership Support for Patient Safety											
1. They aren't investing enough resources to improve the quality of care in this office. (E1R)	52%	23.59%	0%	20%	34%	50%	69%	83%	100%		
2. They overlook patient care mistakes that happen over and over. (E2R)	83%	16.43%	0%	60%	75%	85%	100%	100%	100%		
3. They place a high priority on improving patient care processes. (E3)	82%	17.98%	0%	58%	74%	85%	100%	100%	100%		
4. They make decisions too often based on what is best for the office rather than what is best for patients. (E4R)	62%	22.21%	0%	33%	48%	62%	79%	92%	100%		
8. Office Processes and Standardization											
1. This office is more disorganized than it should be. (C8R)	66%	22.33%	0%	35%	50%	67%	83%	100%	100%		
2. We have good procedures for checking that work in this office was done correctly. (C9)	73%	18.86%	0%	48%	60%	75%	86%	100%	100%		
3. We have problems with workflow in this office. (C12R)	54%	23.16%	0%	25%	38%	53%	71%	86%	100%		
4. Staff in this office follow standardized processes to get tasks done. (C15)	82%	15.05%	20%	61%	75%	83%	94%	100%	100%		

Note: The item's survey location is shown after the item text. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

Table 6-4. Item-Level Comparative Results—2014 Database Medical Offices (Page 4 of 4)

Survey Items By Composite	Average % Positive	s.d.	Survey Item % Positive Response								
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max		
9. Communication Openness											
1. Providers in this office are open to staff ideas about how to improve office processes. (D1)	70%	20.40%	0%	41%	57%	71%	85%	100%	100%	100%	
2. Staff are encouraged to express alternative viewpoints in this office. (D2)	71%	19.59%	0%	44%	58%	73%	84%	100%	100%	100%	
3. Staff are afraid to ask questions when something does not seem right. (D4R)	73%	18.52%	0%	50%	60%	75%	87%	100%	100%	100%	
4. It is difficult to voice disagreement in this office. (D10R)	57%	21.97%	0%	29%	42%	57%	73%	86%	100%	100%	
10. Work Pressure and Pace											
1. In this office, we often feel rushed when taking care of patients. (C3R)	37%	20.89%	0%	13%	22%	33%	50%	67%	100%	100%	
2. We have too many patients for the number of providers in this office. (C6R)	49%	25.91%	0%	16%	30%	48%	68%	85%	100%	100%	
3. We have enough staff to handle our patient load. (C11)	51%	24.26%	0%	20%	33%	50%	67%	83%	100%	100%	
4. This office has too many patients to be able to handle everything effectively. (C14R)	62%	22.96%	0%	32%	45%	63%	80%	92%	100%	100%	

Note: The item’s survey location is shown after the item text. An “R” indicates a negatively worded item, where the percent positive response is based on those who responded “Strongly disagree” or “Disagree,” or “Never” or “Rarely” (depending on the response category used for the item).

Table 6-5. Item-Level Comparative Results on Patient Safety and Quality Issues—2014 Database Medical Offices

List of Patient Safety and Quality Issues	Average % Positive	s.d.	Survey Item % Positive Response						
			Min %ile	10th %ile	25th %ile	Median/50th %ile	75th %ile	90th %ile	Max
A. Access to Care									
1. A patient was unable to get an appointment within 48 hours for an acute/serious problem. (A1)	80%	21.36%	0%	50%	71%	86%	100%	100%	100%
Patient Identification									
2. The wrong chart/medical record was used for a patient. (A2)	98%	5.88%	50%	91%	98%	100%	100%	100%	100%
Charts/Medical Records									
3. A patient's chart/medical record was not available when needed. (A3)	89%	15.14%	0%	67%	83%	97%	100%	100%	100%
4. Medical information was filed, scanned, or entered into the wrong patient's chart/medical record. (A4)	95%	9.28%	40%	82%	92%	100%	100%	100%	100%
Medical Equipment									
5. Medical equipment was not working properly or was in need of repair or replacement. (A5)	91%	12.39%	20%	75%	86%	96%	100%	100%	100%
Medication									
6. A pharmacy contacted our office to clarify or correct a prescription. (A6)	59%	23.04%	0%	29%	42%	60%	75%	88%	100%
7. A patient's medication list was not updated during his or her visit. (A7)	81%	17.58%	20%	58%	71%	83%	100%	100%	100%
Diagnostics & Tests									
8. The results from a lab or imaging test were not available when needed. (A8)	80%	18.03%	0%	57%	71%	83%	95%	100%	100%
9. A critical abnormal result from a lab or imaging test was not followed up within 1 business day. (A9)	94%	10.17%	25%	80%	91%	100%	100%	100%	100%

Note: The item's survey location is shown after the item text. For items A1-A9, the percent positive response is based on those who responded "Not in the past 12 months," "Once or twice in the past 12 months," and "Several times in the past 12 months."

Table 6-6. Item-Level Comparative Results on Information Exchange With Other Settings—2014 Database Medical Offices

Information Exchange With Other Settings	Average % Positive	s.d.	Survey Item % Positive Response								
			Min	10th %ile	25th %ile	Median/50th %ile	75th %ile	90th %ile	Max		
B. Over the past 12 months, how often has your medical office had problems exchanging accurate, complete, and timely information with:											
1. Outside labs/imaging centers? (B1)	81%	18.03%	0%	57%	71%	83%	100%	100%	100%	100%	
2. Other medical offices/Outside physicians? (B2)	80%	17.50%	0%	57%	71%	82%	95%	100%	100%	100%	
3. Pharmacies? (B3)	80%	18.94%	0%	52%	67%	83%	100%	100%	100%	100%	
4. Hospitals? (B4)	86%	15.89%	0%	67%	77%	89%	100%	100%	100%	100%	

Note: The item's survey location is shown after the item text. For items B1-B4, the percent positive response is based on those who responded "No problems in the past 12 months," "One or two problems in the past 12 months," and "Several problems in the past 12 months."

Table 6-7. Comparative Results on Average Overall Ratings on Quality and Patient Safety—2014 Database Medical Offices

Average Overall Ratings on Quality and Patient Safety	Average % Positive	s.d.	Survey Item % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
1. Patient-Centered – Is responsive to individual patient preferences, needs, and values. (G1a) Excellent/Very Good	71%	19.83%	0%	44%	60%	74%	86%	100%	100%
2. Effective – Is based on scientific knowledge. (G1b) Excellent/Very Good	71%	18.37%	0%	46%	60%	71%	83%	100%	100%
3. Timely – Minimizes waits and potentially harmful delays. (G1c) Excellent/Very Good	56%	23.38%	0%	25%	40%	56%	71%	88%	100%
4. Efficient – Ensures cost-effective care (avoids waste, overuse, and misuse of services). (G1d) Excellent/Very Good	62%	20.81%	0%	35%	48%	61%	77%	89%	100%
5. Equitable – Provides the same quality of care to all individuals regardless of gender, race, ethnicity, socioeconomic status, language, etc. (G1e) Excellent/Very Good	82%	14.25%	20%	63%	75%	83%	93%	100%	100%
6. Overall Rating on Patient Safety (G2) – Overall grade on patient safety in work area/unit within hospital Excellent/Very Good	68%	20.50%	0%	40%	55%	69%	83%	95%	100%

Note: The item's survey location is shown after the item text.

Appendixes A and B: Overall Results by Medical Office and Respondent Characteristics

In addition to the overall results on the database medical offices presented, Part II of the report presents data tables showing average percent positive scores on the survey composites and items across database medical offices, broken down by the following medical office and respondent characteristics:

Appendix A: Results by Medical Office Characteristics

- Number of Providers
- Single vs. Multi-Specialty
- Single Specialty
- Ownership
- Geographic Region

Appendix B: Results by Respondent Characteristics

- Staff Position
- Tenure in Medical Office

The breakout tables are included as appendixes because there are a large number of them. Highlights of the findings from the breakout tables in these appendixes are provided on the following pages. The appendixes are available on the following Web site:
<http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/medical-office/2014/index.html>.

Number of Providers (Tables A-1, A-3, A-4)

- Medical offices with *one provider* had the highest average percent positive on all 10 patient safety culture composites; the greater the number of providers, the lower the average percent positive score across composites.
- Percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very good”) were typically higher for medical offices with fewer providers.
- Medical offices with *one provider* had the highest percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (75 percent); medical offices with *20 or more providers* had the lowest (53 percent).

Single vs. Multi-Specialty (Tables A-5, A-7, A-8)

- *Single specialty* medical offices were more positive than *Multi-specialty* medical offices on all 10 patient safety culture composites.
- *Single specialty* medical offices had higher percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very good”).

- *Single specialty* medical offices had a higher percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (70 percent) than *Multi-specialty* medical offices (65 percent).

Single Specialty (Tables A-9, A-12)

- Medical offices that only specialized in *Pediatrics* had the highest average percent positive on all 10 patient safety culture composites (79 percent); *Hematology* had the lowest (68 percent).
- Medical offices that only specialized in *Pediatrics* had the highest Overall Rating on Patient Safety (those responding “Excellent” or “Very good”) (76 percent); *Hematology* and *Internal Medicine* had the lowest (64 percent).

Ownership (Tables A-13, A-15, A-16)

- *Hospital or health system* owned medical offices had the highest average percent positive response across the composites (75 percent); *University/Medical school/Academic medical institution* had the lowest (69 percent).
- *Hospital or health system* owned medical offices had the highest percent positive scores (those responding “Excellent” or “Very good”) for all five Overall Ratings on Quality.
- *Hospital or health system* owned medical offices had the highest Overall Rating on Patient Safety (those responding “Excellent” or “Very good”) (71 percent); *University/Medical School/Academic medical institution* owned medical offices had the lowest (59 percent).

Geographic Region (Tables A-17, A-19, A-20)

- *South Atlantic* medical offices had the highest average percent positive response across patient safety culture composites (77 percent); *New England/Mid-Atlantic* had the lowest (67 percent).
- *South Atlantic* medical offices had the highest percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very good”).
- *South Atlantic* medical offices had the highest percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (75 percent). *New England/Mid-Atlantic* medical offices had the lowest (55 percent).

Staff Position (Tables B-1, B-3, B-4)

- *Management* had the highest average percent positive response across the composites (84 percent); *Nurses (RN/LVN/LPN)* had the lowest (71 percent).
- *Management* had the highest percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very Good”).
- *Management* had the highest percentage who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (83 percent); *Nurses (RN/LVN/LPN)* had the lowest (64 percent).

Tenure in Medical Office (Tables B-5, B-7, B-8)

- Respondents with *less than 1 year* in their current medical office had the highest average percent positive response across the composites (78 percent); respondents with *1 year to less than 3 years and 3 years to less than 6 years* (72 percent for both groups) had the lowest.
- Respondents with *less than 1 year* or *11 years or more* in their current medical office had the highest percent positive scores for all five Overall Ratings on Quality (those responding “Excellent” or “Very Good”).
- Respondents with *less than 1 year* in their current medical office had the highest percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very good” (70 percent); respondents with *11 years or more* in their current medical office had the second highest (69 percent).

Chapter 7. What's Next? Action Planning for Improvement

The seven steps of action planning outlined in this chapter are primarily based on the book *Designing and Using Organizational Surveys: A Seven-Step Process* (Church & Waclawski, 1998).

Seven Steps of Action Planning

Administering the medical office survey can be considered an “intervention,” a means of educating staff and building awareness about issues of concern related to patient safety. But it should not be the only goal of conducting the survey. Administering the survey is not enough. The delivery of survey results is not the *end point* in the survey process; it is actually just the *beginning*. Often, the perceived failure of surveys as a means for creating lasting change is actually due to faulty or nonexistent action planning or survey followup.

Seven steps of action planning are provided to help your medical office go beyond simply conducting a survey to realizing patient safety culture change. The seven steps of action planning are:

1. Understand your survey results.
2. Communicate and discuss survey results.
3. Develop focused action plans.
4. Communicate action plans and deliverables.
5. Implement action plans.
6. Track progress and evaluate impact.
7. Share what works.

Step # 1: Understand Your Survey Results

It is important to review the survey results and interpret them before you develop action plans. Develop an understanding of your medical office's key strengths and areas for improvement. Examine your medical office's overall percent positive scores on the patient safety culture composites and items.

- Which areas were most and least positive?
- How do your medical office's results compare with the results from the database medical offices?

Next, consider examining your survey data broken down by staff position.

- Are there different areas for improvement for different medical office staff?
- Do any patterns emerge?
- How do your medical office's results for these breakouts compare with the results from the database medical offices?

After reviewing the survey results carefully, identify two or three areas for improvement to avoid focusing on too many issues at one time. Once you have identified areas for improvement, you may find the Medical Office Resource List beneficial

<http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/medical-office/2010/moimpptsaf.html>).

Step # 2: Communicate and Discuss the Survey Results

Common complaints among survey respondents are that they never get any feedback about survey results and have no idea whether anything ever happens as a result of a survey. It is therefore important to thank your staff for taking the time to complete the survey and let them know that you value their input. Sharing results from the survey throughout the medical office shows your commitment to the survey and improvement process.

Use survey feedback as an impetus for change. However, to ensure respondent anonymity/confidentiality, it is important to report data only if there are enough respondents in a particular category or group. As a rule of thumb, reporting data is not recommended if a category has fewer than three respondents. For example, if only two people in a staff position respond, that staff position's data should not be reported separately because there are too few respondents to provide complete assurance of anonymity/confidentiality.

Summaries of the survey results should be distributed throughout the medical office in a top-down manner, beginning with senior management, administrators, and medical and senior leaders, followed by department managers and then staff. Managers at all levels should be expected to carefully review the findings. Summarize key findings, but also encourage discussion about the results throughout the medical office. What do others see in the data and how do they interpret the results?

In some cases, it may not be completely clear why an area of patient safety culture was particularly low. Keep in mind that surveys are only one way of examining culture, so strive for a deeper understanding when needed. Conduct followup activities, such as focus groups or interviews with staff to find out more about an issue, why it is problematic, and how it can be improved.

Step # 3: Develop Focused Action Plans

Once areas for patient safety culture improvement have been identified, formal written action plans need to be developed to ensure progress toward change. Encourage and empower staff to develop action plans that are "SMART":

- Specific.
- Measurable.
- Achievable.
- Relevant.
- Time bound.

When deciding whether a particular action plan or initiative would be a good fit in your facility, you may find *Will It Work Here? A Decisionmaker's Guide to Adopting Innovations* (Brach, et al., 2008) to be a useful resource (<http://www.innovations.ahrq.gov/guide/guideTOC.aspx>). The guide helps users answer four overarching questions:

- Does this innovation fit?
- Should we do it here?
- Can we do it here?
- How can we do it here?

Identify funding, staffing, or other resources needed to implement action plans and take steps to obtain these resources, which are often fundamental obstacles hindering implementation of action plans. It is also important to identify other obstacles you may encounter when trying to implement change and to anticipate and understand the rationale behind any potential resistance toward proposed action plans.

In the planning stage, it is also important to identify quantitative and qualitative measures that can be used to evaluate progress and the impact of changes implemented. Evaluative measures will need to be used before, during, and after implementation of your action plan initiatives to assess the effectiveness of the initiatives.

Step # 4: Communicate Action Plans and Deliverables

Once action plans have been developed, the plans, deliverables, and expected outcomes of the plans need to be communicated. Those directly involved or affected will need to know their roles and responsibilities, as well as the timeframe for implementation. Action plans and goals should also be shared widely so that their transparency encourages further accountability and demonstrates the medical office-wide commitments being made in response to the survey results.

At this step it is important for senior medical office managers and leaders to understand that they are the primary owners of the change process and that success depends on their full commitment and support. Senior-level commitment to taking action must be strong; without buy-in from the top, including medical leadership, improvement efforts are likely to fail.

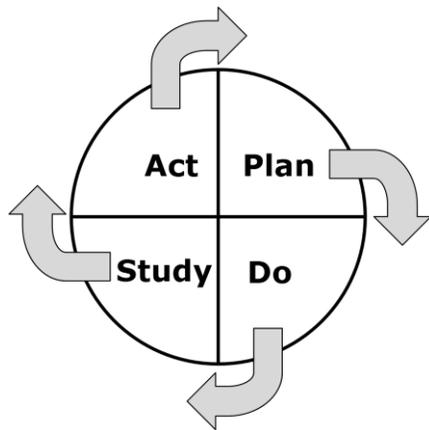
Step # 5: Implement Action Plans

Implementing action plans is one of the hardest steps. Taking action requires the provision of necessary resources and support. It requires tracking quantitative and qualitative measures of progress and success that have already been identified. It requires publicly recognizing those individuals and units that take action to drive improvement. And it requires adjustments along the way.

This step is critical to realizing patient safety culture improvement. While communicating the survey results is important, taking action makes the real difference. However, as the Institute for Healthcare Improvement (IHI, 2006) suggests, actions do not have to be major, permanent changes. In fact, it is worthwhile to strive to implement easier, smaller changes that are likely to have a positive impact rather than big changes with unknown probability of success.

The “Plan-Do-Study-Act” cycle (Langley, et al., 1996) (Figure 7-1) is a pilot-study approach to change that involves first developing a small-scale plan to test a proposed change (Plan), carrying out the plan (Do), observing and learning from the consequences (Study), and determining what modifications should be made to the plan (Act). Implementation of action plans can occur on a small scale, within a single area, to examine impact and refine plans before rolling out the changes on a larger scale to other areas or medical offices.

Figure 7-1. Plan-Do-Study-Act Cycle



Step # 6: Track Progress and Evaluate Impact

Use quantitative and qualitative measures to review progress and evaluate whether a specific change actually leads to improvement. Ensure that there is timely communication of progress toward action plans on a regular basis. If you determine that a change has worked, communicate that success to staff by telling them what was changed and that it was done in response to the safety culture survey results. Be sure to make the connection to the survey so that the next time the survey is administered, staff will know that it will be worthwhile to participate again because actions were taken based on the prior survey’s results.

Alternatively, your evaluation may reveal that a change is not working as expected or has failed to reach its goals and will need to be modified or replaced by another approach. Before dropping the effort completely, try to determine why it failed and whether adjustments might be worth trying.

It is important not to reassess culture too frequently because lasting culture change will be slow and may take years. Frequent assessments of culture are likely to find temporary shifts or improvements that may come back down to baseline levels in the longer term if changes are not sustained. When planning to reassess culture, it is also very important to obtain high survey response rates. Otherwise, it will not be clear whether changes in survey results over time are due to true changes in attitudes or are the result of surveying different staff each time.

Step # 7: Share What Works

In Step #6, you tracked measures to identify which changes result in improvement. Once your medical office has found effective ways to address a particular area, the changes can be implemented on a broader scale to other medical offices. Be sure to share your successes with outside medical offices and health care systems as well.

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Notes: Description of Data Cleaning and Calculations

This section provides additional detail about how various statistics presented in this report were calculated.

Data Cleaning

Each participating medical office submitted individual-level survey data. Once the data were submitted, response frequencies were run on each medical office's data to look for out-of-range values, missing variables, or other data anomalies. When data problems were found, medical offices were contacted and asked to make corrections and resubmit their data. In addition, each participating medical office was sent a copy of its data frequencies to verify that the dataset received was correct. Medical offices were not required to submit data for all of the background characteristic questions.

The data were also cleaned for straight-lined answers, which is when respondents give the same answer for both a positively worded item (In this office, there is a good working relationship between staff and providers) and a negatively worded item (In this office, we often feel rushed when taking care of patients) in the same section of the survey. Positively worded and negatively worded items are in sections C, D, E, and F. When respondents supplied the same answers for all items in sections C, D, E, or F, the items in those sections were set to missing because the sections had negatively worded items.

After this initial cleaning, respondents with missing values across sections C, D, E, and F were deleted before analyses. Respondents who supplied either "Don't know" answers or had missing answers to all items across sections A, B, C, D, E, and F were also deleted before analyses.

Response Rates

As part of the data submission process, medical offices were asked to provide their response rate numerator and denominator. Response rates were calculated using the formula below.

$$\text{Response Rate} = \frac{\text{Number of complete, returned surveys}}{\text{Number of surveys distributed} - \text{Ineligibles}}$$

Numerator = Number of complete, returned surveys. The numerator equals the number of individual survey records submitted to the database. It *excludes* surveys that were returned blank on all nondemographic survey items but *includes* surveys where at least one nondemographic survey item was answered.

Denominator = The total number of surveys distributed minus ineligibles. Ineligibles include deceased individuals or those who were no longer employed at the medical office during data collection.

As a data cleaning step, we examined whether any individual survey records submitted to the database were missing responses on all of the nondemographic survey items (indicating that the respondent did not answer any of the main survey questions). Records where all nondemographic

survey items were missing were excluded from the medical office's numerator. Medical offices were included in the database only if they had a numerator of at least 5 after this data cleaning step.

Calculation of Percent Positive Scores

Most of the survey's items ask respondents to answer using 5-point response categories in terms of agreement (Strongly agree, Agree, Neither, Disagree, Strongly disagree) or frequency (Always, Most of the time, Sometimes, Rarely, Never). Three of the 10 patient safety culture composites, consisting of 12 items, use the frequency response option (*Communication Openness, Patient Care Tracking/Follow-up, and Communication About Error*), while the other seven composites use the agreement response option.

The 13 noncomposite items use 6-point frequency response categories. The nine Patient Safety and Quality Issues items use a frequency scale ranging from "Not in the past 12 months" to "Daily" (Not in the past 12 months, Once or twice in the past 12 months, Several times in the past 12 months, Monthly, Weekly, Daily). The four Information Exchange With Other Settings items use similar response options ranging from "No problems in the past 12 months" to "Problems daily" (No problems in the past 12 months, Problems Once or twice in the past 12 months, Problems several times in the past 12 months, Problems monthly, Problems weekly, Problems daily).

Item-Level Percent Positive Response

Both positively worded items (such as "Staff support one another in this medical office") and negatively worded items (such as "Staff use shortcuts to get their work done faster") are included in the survey. Calculating the percent positive response on an item is different for positively and negatively worded items:

- **For positively worded items** with 5-point response scales, percent positive response is the combined percentage of respondents within a medical office who answered "Strongly agree" or "Agree," or "Always" or "Most of the time," depending on the response categories used for the item.

For example, for the item "We have enough staff to handle our patient load," if 50 percent of respondents within a medical office responded *Strongly agree* and 25 percent responded *Agree*, the item-level percent positive response for that medical office would be $50\% + 25\% = 75\%$ positive.

- **For negatively worded items**, percent positive response is the combined percentage of respondents within a medical office who answered "Strongly disagree" or "Disagree," or "Never" or "Rarely," because a *negative* answer on a negatively worded item indicates a *positive* response.

For example, for the item "Mistakes happen more than they should in this office," if 60 percent of respondents within a medical office responded *Strongly disagree* and 20 percent responded *Disagree*, the item-level percent positive response would be 80 percent (i.e., 80 percent of respondents *do not* believe mistakes happen more than they should in this office).

Percent positive scores for the Patient Safety and Quality Issues items, as well as the Information Exchange With Other Settings items, were calculated differently than the other survey items. The percent positive score for these 13 items are the sum of the three response options that represent the smallest frequency of occurrence. For Patient Safety Quality Issues items, these are not in the past 12 months, once or twice in the past 12 months, and several times in the past 12 months. For Information Exchange With Other Settings items, the three responses are no problems in the past 12 months, problems once or twice in the past 12 months, and problems several times in the past 12 months.

Composite-Level Percent Positive Response

The survey's 51 items measure 10 areas or composites of patient safety culture, information exchange with other settings, and patient safety and quality issues. The 10 patient safety culture composites are composed of three or four survey items. Composite scores were calculated for each medical office by averaging the percent positive response on the items within a composite. For example, for a three-item composite, if the item-level percent positive responses were 50 percent, 55 percent, and 60 percent, the medical office's composite-level percent positive response would be the average of these three percentages, or 55 percent positive.

Item and Composite Percent Positive Scores

To calculate your medical office's composite score, average the percentage of positive response to each item in the composite. Table N1 shows an example of computing a composite score for *Staff Training*:

1. This composite has three items. Two are positively worded (items #C4 and #C7) and one is negatively worded (item #C10). Keep in mind that DISAGREEING with a negatively worded item indicates a POSITIVE response.
2. Calculate the percentage of positive responses at the item level (see example in Table N1).

Table N1. Example of Computing Item and Composite Percent Positive Scores

Four items measuring "Staff Training"	For positively worded items, count the # of "Strongly agree" or "Agree" responses	For negatively worded items, count the # of "Strongly disagree" or "Disagree" responses	Total # of responses to the item	Percent positive response on item
Item C4 - positively worded				
"This office trains staff when new processes are put into place"	110	NA*	240	110/240=46%
Item C7 - positively worded				
"This office makes sure staff get the on-the-job training they need"	140	NA*	250	140/250= 56%
Item C10R - negatively worded				
"Staff in this office are asked to do tasks they haven't been trained to do"	NA*	125	260	125/260=48%
*NA = Not applicable Composite Score % Positive = (46% + 56% + 48%) / 3 = 50%				

This example includes three items, with percent positive response scores of 46 percent, 56 percent, and 48 percent. Averaging these item-level percent positive scores results in a composite score of .50 or 50 percent on Staff Training. In this example, an average of about 50 percent of the respondents responded positively to the survey items in this composite.

Once you calculate your medical office's percent positive response for each of the 10 patient safety culture composites, you can compare your results with the composite-level results from the 935 database medical offices.

Percentiles

Percentiles were computed using the SAS[®] software default method. The first step in this procedure is to rank order the percent positive scores from all the participating medical offices, from lowest to highest. The next step is to multiply the number of medical offices (n) by the percentile of interest (p), which in our case would be the 10th, 25th, 50th, 75th, or 90th percentile.

For example, to calculate the 10th percentile, one would multiply 935 (the total number of medical offices) by .10 (10th percentile). The product of n x p is equal to "j+g" where "j" is the integer and "g" is the number after the decimal. If "g" equals 0, the percentile is equal to the percent positive value of the medical office in the jth position plus the percent positive value of the medical office in the jth +1 position, divided by 2 [(X_(j) + X_(j+1))/2]. If "g" is not equal to 0, the percentile is equal to the percent positive value of the medical office in the jth +1 position.

The following examples show how the 10th and 50th percentiles would be computed using a sample of percent positive scores from 12 medical offices (using fake data shown in Table N2). First, the percent positive scores are sorted from low to high on Composite “A.”

Table N2. Data Table for Example of How To Compute Percentiles

Medical Office	Composite “A” % Positive Score	
1	33%	
2	48%	← 10 th percentile score = 48%
3	52%	
4	60%	
5	63%	
6	64%	← 50 th percentile score = 65%
7	66%	
8	70%	
9	72%	
10	75%	
11	75%	
12	78%	

10th percentile

1. For the 10th percentile, we would first multiply the number of medical offices by .10:
($n \times p = 12 \times .10 = 1.2$).
2. The product of $n \times p = 1.2$, where “j” = 1 and “g” = 2. Since “g” is *not* equal to 0, the 10th percentile score is equal to the percent positive value of the medical office in the $j^{\text{th}} + 1$ position:
 - a. “j” equals 1.
 - b. The 10th percentile equals the value for the medical office in the 2nd position = 48%.

50th percentile

1. For the 50th percentile, we would first multiply the number of medical offices by .50:
($n \times p = 12 \times .50 = 6.0$).
2. The product of $n \times p = 6.0$, where “j” = 6 and “g” = 0. Since “g” = 0, the 50th percentile score is equal to the percent positive value of the medical office in the j^{th} position plus the percent positive value of the medical office in the $j^{\text{th}} + 1$ position, divided by 2:
 - a. “j” equals 6.
 - b. The 50th percentile equals the average of the medical offices in the 6th and 7th positions ($(64\% + 66\%) / 2 = 65\%$).

