



MEDICAL OFFICE SURVEY ON PATIENT SAFETY CULTURE



2018 USER DATABASE REPORT

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Medical Office Survey on Patient Safety Culture: 2018 User Database Report

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Executive Summary




Surveys on Patient Safety Culture™

EXECUTIVE SUMMARY 2018 MEDICAL OFFICE SURVEY DATABASE REPORT

This overview of survey findings summarizes how medical office employees perceive 10 areas of patient safety culture based on the 2018 Medical Office Survey on Patient Safety Culture Database.



35,523 providers and staff responded 

10 areas or composites of patient safety culture were assessed in the survey

average percent positive across all 10 composites was **72%**

AREAS OF STRENGTH AND POTENTIAL AREAS FOR IMPROVEMENT

AREAS OF STRENGTH

Teamwork Within Units



86%

of respondents reported that they work well together as a team

Patient Care Tracking/Followup



86%

of respondents indicated that patients are reminded about appointments and those who need monitoring are followed up with

AREA FOR POTENTIAL IMPROVEMENT

Work Pressure and Pace



46%

of respondents indicated that there are enough staff and providers to handle the patient load and the office work pace is not hectic

OTHER KEY FINDINGS

MEDICAL OFFICE SIZE

Medical offices with 2 providers reported the highest average percent positive

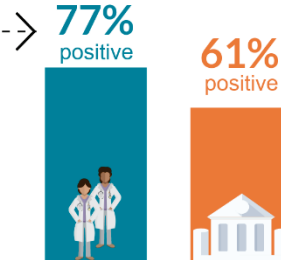
Medical offices with 20 or more providers reported the lowest



OWNERSHIP

Physician-owned medical offices reported the highest average percent positive

Federal, State, or local government-owned medical offices reported the lowest



SPECIFIC SPECIALTIES

Surgery/General Surgery reported the highest average percent positive



78%

Cardiology and Neurology reported the lowest average percent positive

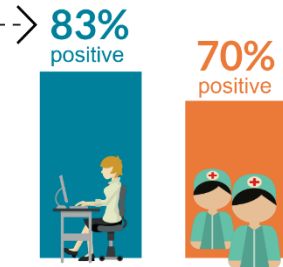


71%

STAFF POSITION

Management reported the highest average percent positive

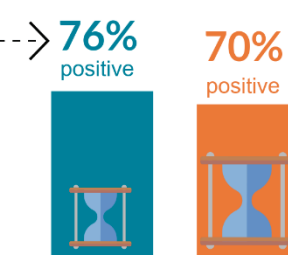
Registered nurses / Licensed vocational nurses / Licensed practical nurses reported the lowest



TENURE

Respondents with less than 1 year in their current medical office reported the highest average percent positive

Respondents with 3-6 years reported the lowest



What's next? Action planning for improvement

- 1 Define your goals
- 2 Plan your initiatives
- 3 Communicate your action plan

The *Action Planning Tool for the AHRQ Surveys on Patient Safety Culture* provides step-by-step guidance on how to develop an action plan to improve patient safety culture, available at www.ahrq.gov/sops.

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 Surveys on Patient Safety Culture™ (SOPS™) Medical Office Survey, the Agency for Healthcare Research and Quality (AHRQ) established the Medical Office Survey on Patient Safety Culture database.

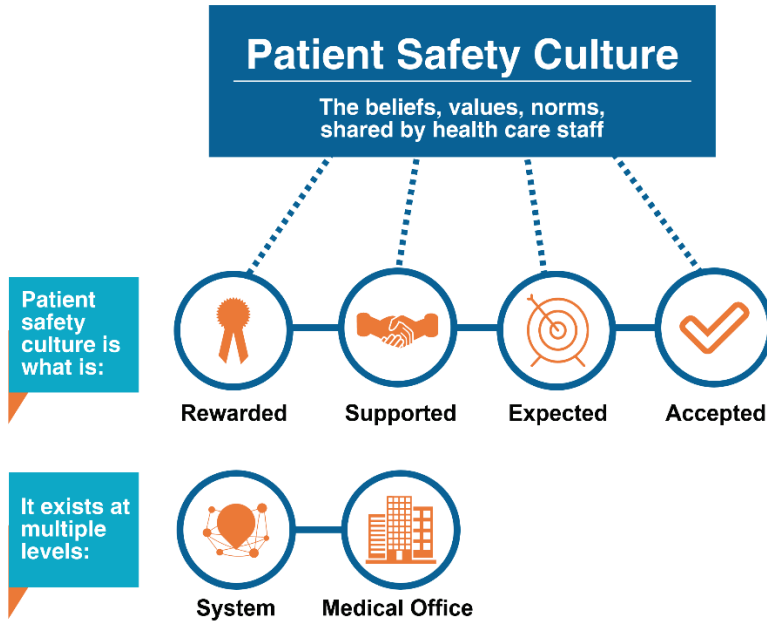
This report presents statistics (averages, standard deviations, minimum and maximum scores, and percentiles) on the patient safety culture composites and items from the survey. It also includes two appendixes:

- Appendix A presents results by medical office characteristics (number of providers, single specialty vs. multispecialty, specialty, primary care specialty, ownership, and region).
- Appendix B presents results by respondent characteristics (staff position and tenure in medical office).

Chapter 1. Introduction

Organizational culture refers to the beliefs, values, and norms shared by staff throughout the organization that influence their actions and behaviors. Patient safety culture is the extent to which these beliefs, values, and norms support and promote patient safety. Patient safety culture can be measured by determining what is rewarded, supported, expected, and accepted in an organization as it relates to patient safety.

Figure 1. Definition of Patient Safety Culture



Survey Content

The Agency for Healthcare Research and Quality (AHRQ) funded the development of the *Medical Office Survey on Patient Safety Culture*. The survey includes 38 items that measure 10 composites of patient safety culture. The 10 patient safety culture composites are 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>
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.
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.
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.
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.
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.
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.
Patient Care Tracking/Followup	The office reminds patients about appointments, documents how well patients follow treatment plans, follows up with patients who need monitoring, and follows up when reports from an outside provider are not received.
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.
Teamwork	The office has a culture of teamwork, mutual respect, and close working relationships among staff and providers.
Work Pressure and Pace	There are enough staff and providers to handle the patient load, and the office work pace is not hectic.

In addition to the composite items, the survey includes items that measure how often medical offices have problems exchanging information with other settings and have other patient safety and quality issues. The survey also includes items 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.

Chapter 2. Survey Administration Statistics

This chapter presents descriptive information on how the 2018 database medical offices administered the survey.

Highlights

- The 2018 database consists of data from 35,523 medical office staff respondents from 2,437 medical offices.
- The average database medical office response rate was 74 percent, with an average of 15 completed surveys per medical office.
- Most database medical offices (86 percent) administered *web surveys*, which resulted in lower response rates (71 percent) compared with response rates from *both paper and web* (100 percent) and *paper only* survey administration (90 percent).

Overall statistics included in the 2018 database are shown in Tables 2-1 and 2-2.

Table 2-1. Overall Statistics - 2018 Database Medical Offices

Overall Response Information		Statistic
Number of respondents		35,523
Number of surveys administered		59,995
Average Response Information		Statistic
Average number of respondents per medical office (range: 3 to 516)		15
Average number of surveys administered per medical office (range: 5 to 946)		25
Average medical office response rate (range: 5% to 100%)		74%

Table 2-2. Survey Administration Mode Statistics - 2018 Database Medical Offices

Survey Administration Mode	Database Medical Offices		Database Respondents		Average Mode Response Rate
	Number	Percent	Number	Percent	Percent
Paper only	226	9%	2,950	8%	90%
Web only	2,085	86%	30,405	86%	71%
Both paper and web	126	5%	2,168	6%	100%
Total	2,437	100%	35,523	100%	

Chapter 3. Medical Office Characteristics

This chapter presents information about the distribution of database medical offices by number of providers, single specialty vs. multispecialty, specific specialties, ownership, and region. The characteristics of database medical offices are presented in the following tables.

Highlights

- Forty percent of database medical offices have 4 to 9 providers.
- Most database medical offices (91 percent) are owned by a hospital or health system.
- More than one-third (39 percent) of database medical offices are from the South Atlantic region.
- Most database medical offices (75 percent) have single specialties.
- Of single-specialty database medical offices, 22 percent specialize in *Family Practice/Family Medicine*.

Table 3-1. Distribution of 2018 Database Medical Offices by Medical Office Characteristics

Number of Providers	Database Medical Offices (N=2,437)		Database Respondents (N=35,523)	
	Number	Percent	Number	Percent
1	257	11%	2,252	6%
2	395	16%	2,904	8%
3	322	13%	2,948	8%
4-9	986	40%	12,935	36%
10-13	179	7%	3,858	11%
14-19	117	5%	3,027	9%
20 or more	181	7%	7,599	21%
Ownership	Number	Percent	Number	Percent
Hospital or health system	2,219	91%	31,584	89%
University or academic medical center	131	5%	1,614	5%
Providers and/or physicians	59	2%	1,041	3%
Community health center	17	1%	441	1%
Federal, State, or local government	10	<0.5%	798	2%
Other	1	<0.5%	45	<0.5%
Region	Number	Percent	Number	Percent
New England	115	5%	1,543	4%
Mid-Atlantic	187	8%	2,251	6%
South Atlantic	956	39%	12,735	36%
East North Central	464	19%	8,074	23%
East South Central	68	3%	996	3%
West North Central	231	9%	2,756	8%
West South Central	194	8%	3,076	9%
Mountain	180	7%	2,816	8%
Pacific	42	2%	1,276	4%
Single Specialty vs. Multispecialty	Number	Percent	Number	Percent
Single specialty	1,818	75%	23,421	66%
Multispecialty	619	25%	12,102	34%

Note: Percentages may not add to 100 due to rounding. States are categorized into regions as follows:

- New England: CT, MA, ME, NH, RI, VT
- Mid-Atlantic: NJ, NY, PA
- South Atlantic: DC, DE, FL, GA, MD, NC, SC, VA, WV
- East North Central: IL, IN, MI, OH, WI
- East South Central: AL, KY, MS, TN
- West North Central: IA, KS, MN, MO, ND, NE, SD
- West South Central: AR, LA, OK, TX
- Mountain: AZ, CO, ID, MT, NM, NV, UT, WY
- Pacific: AK, CA, HI, OR, WA

Table 3-2. Specific Specialties of Single-Specialty Medical Offices: Distribution of 2018 Database Medical Offices

Specialty	Number of Medical Offices	Percent	Specialty	Number of Medical Offices	Percent
Allergy/Immunology	2	<0.5%	OB/GYN or GYN	174	10%
Cardiology	127	7%	Ophthalmology	11	1%
Child and Adolescent Psychiatry	1	<0.5%	Orthopedics	85	5%
Dermatology	13	1%	Otolaryngology	15	1%
Diagnostic Radiology	1	<0.5%	Pathology – Anatomic/Clinical	1	<0.5%
Emergency Medicine	4	<0.5%	Pediatrics	133	7%
Endocrinology/ Metabolism	20	1%	Physical Medicine and Rehabilitation	38	2%
Family Practice/Family Medicine	407	22%	Psychiatry	23	1%
Gastroenterology	29	2%	Public Health and Rehabilitation	10	1%
General Practice	28	2%	Pulmonary Medicine	29	2%
General Preventive Medicine	4	<0.5%	Radiology	16	1%
General Surgery	29	2%	Rheumatology	20	1%
Geriatrics	9	<0.5%	Surgery (All)	103	6%
Hematology/Oncology	69	4%	Urology	31	2%
Internal Medicine	206	11%	Vascular Medicine	6	<0.5%
Nephrology	8	<0.5%	Other	113	6%
Neurology	53	3%			
Total				1,818	100%

Note: Specific specialty is presented only for single-specialty medical offices. Percentages do not add to 100 due to rounding.

Chapter 4. Respondent Characteristics

This chapter describes respondent characteristics within the participating medical offices.

Highlights

- The top three staff positions of respondents were:
 - Other clinical staff or clinical support staff (30 percent).
 - Administrative or clerical staff (25 percent).
 - Registered Nurse (RN), Licensed Vocational Nurse (LVN), or Licensed Practical Nurse (LPN) (16 percent).
- More than one-fourth of respondents (26 percent) had worked at their medical office for *1 year to less than 3 years*.
- Most respondents (60 percent) worked *33 to 40* hours per week.

Table 4-1. Distribution of 2018 Database Medical Offices by Respondent Characteristics

Respondent Characteristics	Database Respondents	
Staff Position	Number	Percent
Other clinical staff or clinical support staff	9,726	30%
Administrative or clerical staff	8,099	25%
Registered nurse (RN), licensed vocational nurse (LVN), licensed practical nurse (LPN)	5,047	16%
Physician (M.D. or D.O.)	3,650	11%
Management	2,555	8%
Physician assistant, nurse practitioner, clinical nurse specialist, nurse midwife, advanced practice nurse, etc.	1,831	6%
Other position	1,558	5%
Total	32,466	100%
Missing	3,057	
Overall total	35,523	
Tenure in Medical Office	Number	Percent
Less than 2 months	684	2%
2 months to less than 1 year	5,271	17%
1 year to less than 3 years	7,959	26%
3 years to less than 6 years	5,860	19%
6 years to less than 11 years	4,850	16%
11 years or more	5,990	20%
Total	30,614	100%
Missing	4,909	.
Overall	35,523	.
Hours Worked per Week in Medical Office	Number	Percent
1 to 4 hours	284	1%
5 to 16 hours	1,105	4%
17 to 24 hours	1,502	5%
25 to 32 hours	1,970	6%
33 to 40 hours	18,411	60%
41 hours or more	7,377	24%
Total	30,649	100%
Missing	4,874	.
Overall	35,523	.

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

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* (86 percent positive).
 - *Patient Care Tracking/Followup* (86 percent positive).
- The area with potential for improvement or the composite with the lowest average percent positive responses was:
 - *Work Pressure and Pace* (46 percent positive).
- Across database medical offices, on average most respondents (68 percent) gave their medical office an Overall Patient Safety rating of “Excellent” (29 percent) or “Very Good” (39 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.ⁱ The patient safety culture composites are shown in order from the highest average percent positive response to the lowest.

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.

Overall Ratings on Quality

Chart 5-5 shows the results from the five items on quality.

Overall Ratings on Patient Safety

Chart 5-6 shows results from the item that asks respondents to give their medical office an overall rating on patient safety.

ⁱ Some medical offices excluded one or more survey items and are therefore excluded from composite-level calculations when the omitted items pertain to a particular composite. For the 2018 report, 153 medical offices were excluded from one or more composite-level calculations for this reason.

Chart 5-1. Composite-Level Average Percent Positive Response – 2018 Database Medical Offices

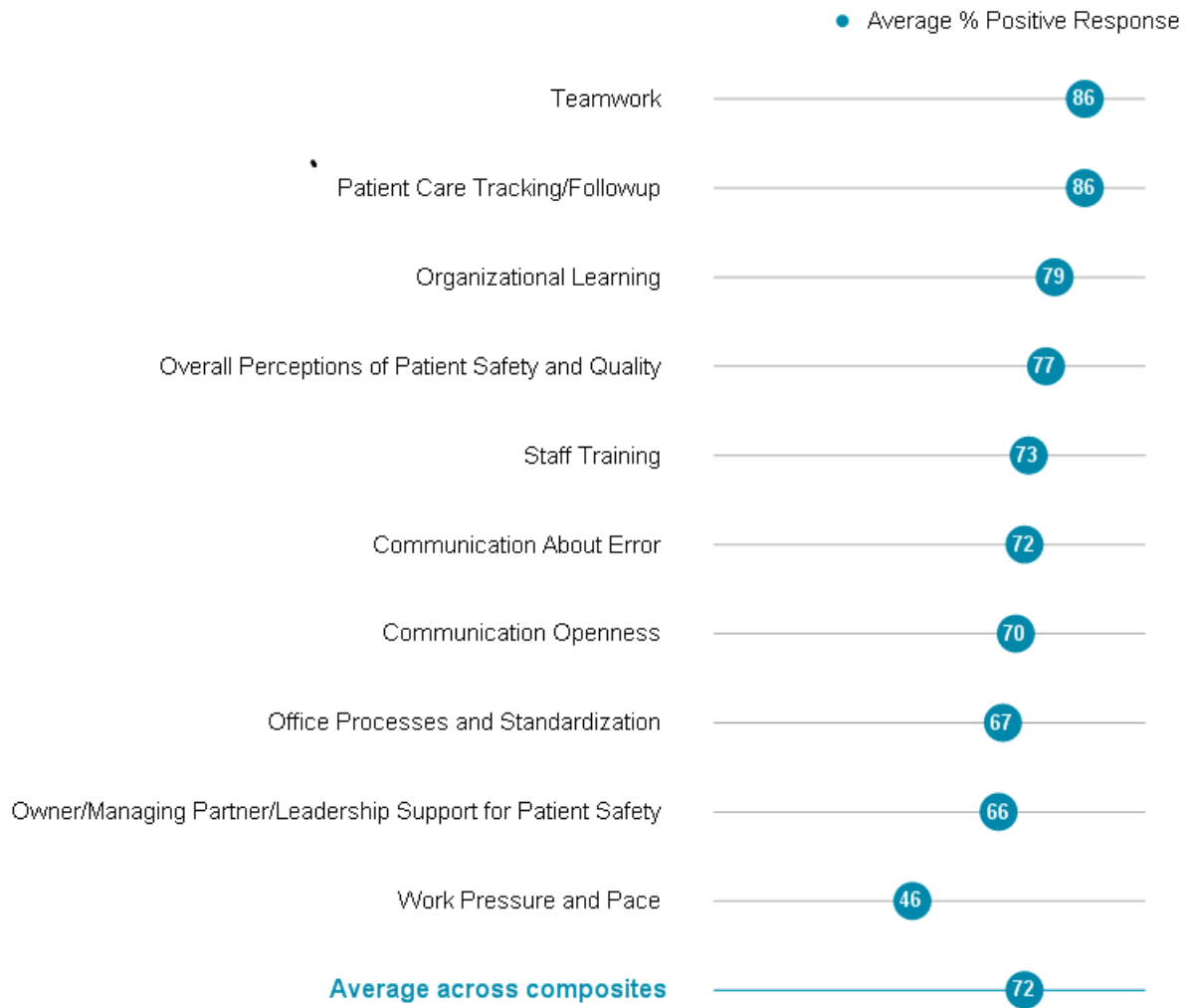
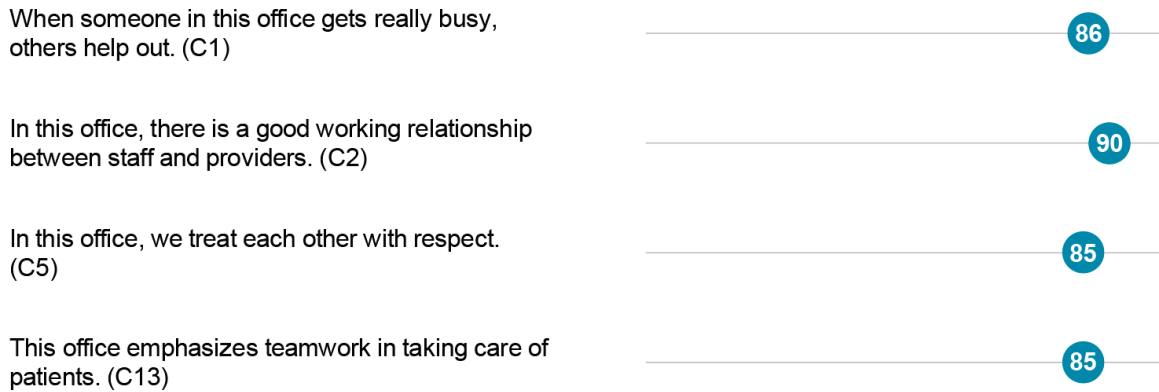


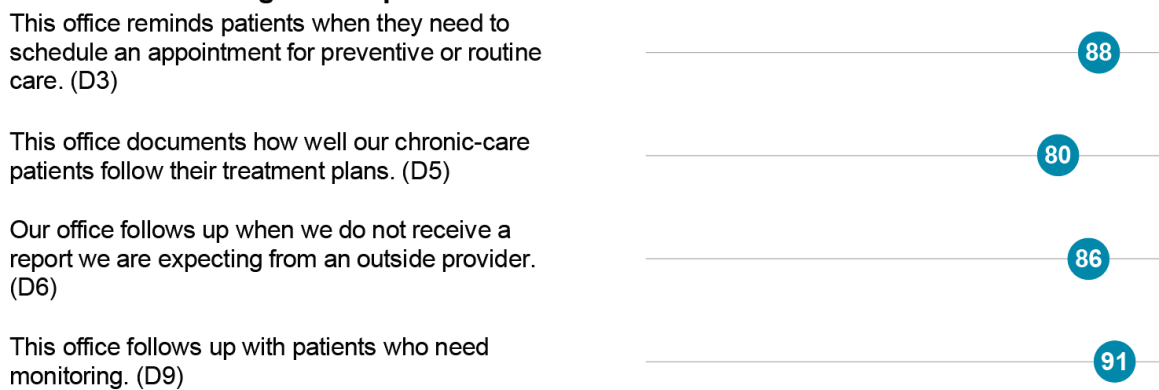
Chart 5-2. Item-Level Average Percent Positive Response – 2018 Database Medical Offices (Page 1 of 4)

1. Teamwork

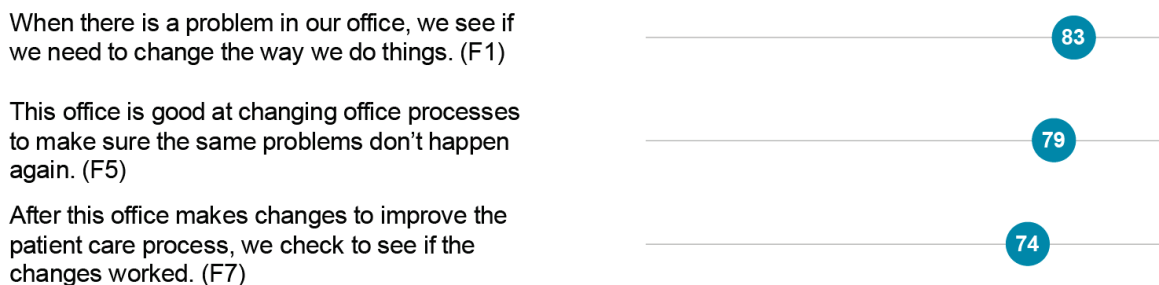
● Average % Positive Response



2. Patient Care Tracking/Followup

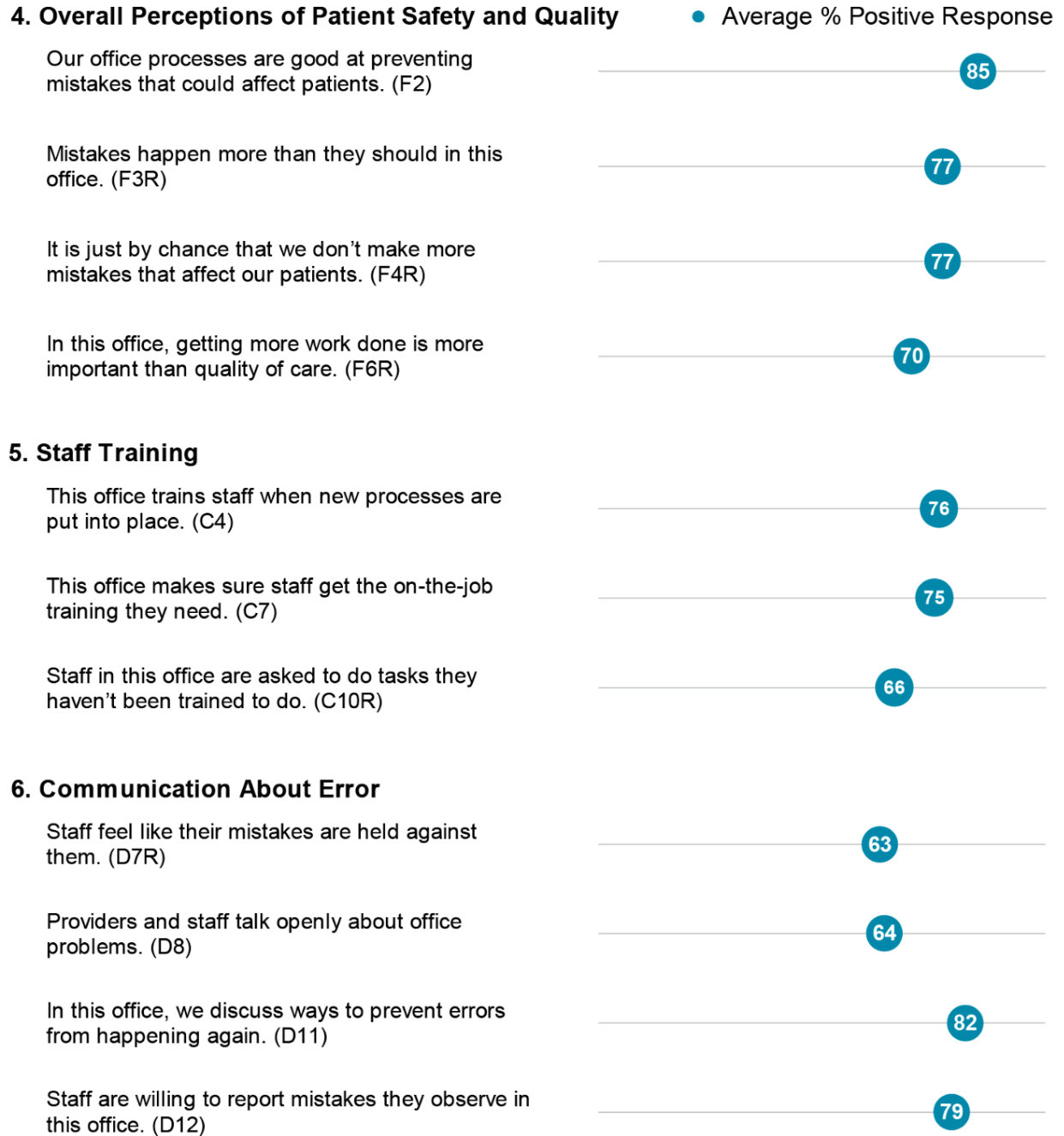


3. Organizational Learning



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 – 2018 Database Medical Offices (Page 2 of 4)

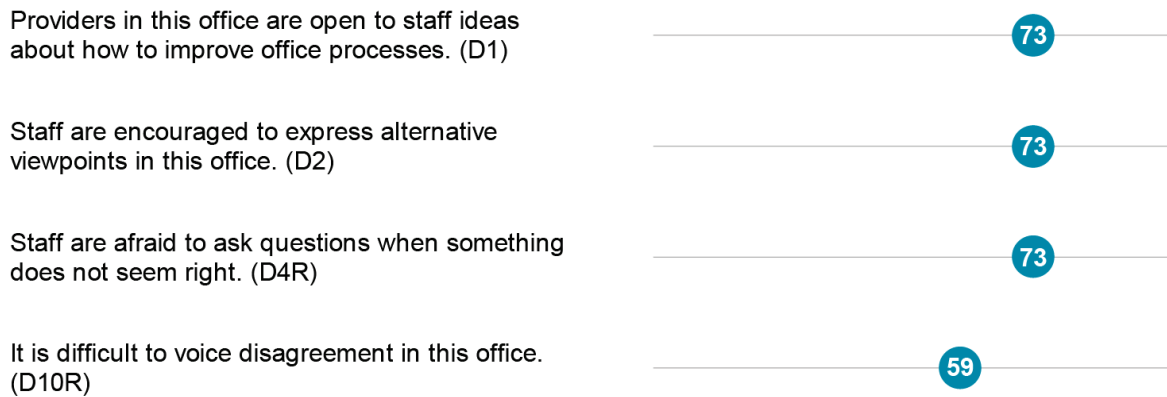


Note: The item's survey location is shown after the item text. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

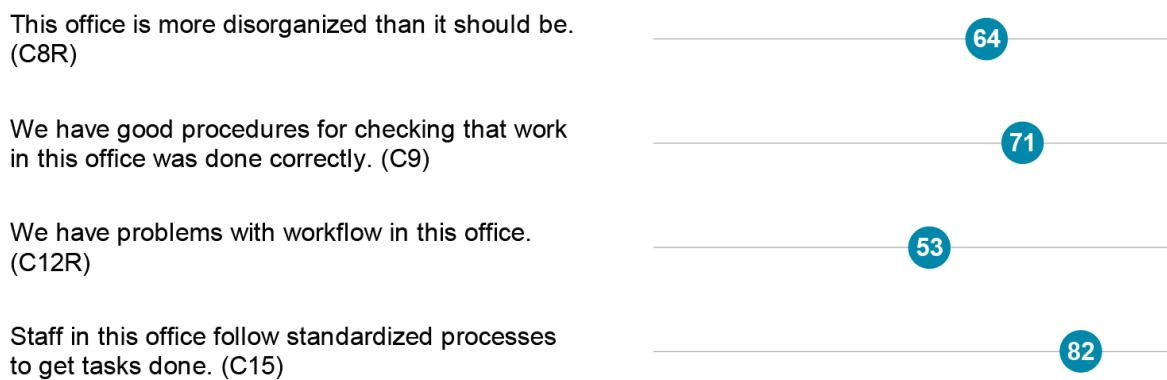
Chart 5-2. Item-Level Average Percent Positive Response – 2018 Database Medical Offices (Page 3 of 4)

7. Communication Openness

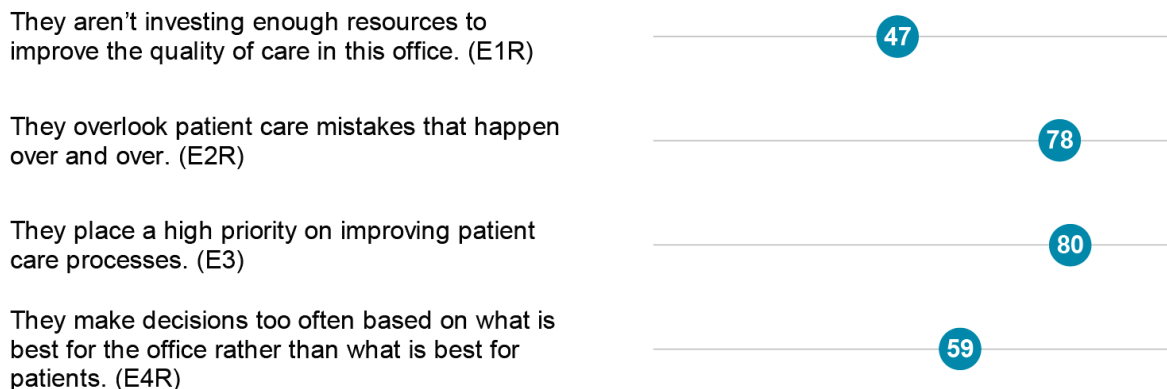
● Average % Positive Response



8. Office Processes and Standardization



9. Owner/Managing Partner/Leadership Support for Patient Safety



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 – 2018 Database Medical Offices (Page 4 of 4)

10. Work Pressure and Pace

In this office, we often feel rushed when taking care of patients. (C3R)

● Average % Positive Response

38

We have too many patients for the number of providers in this office. (C6R)

45

We have enough staff to handle our patient load. (C11)

46

This office has too many patients to be able to handle everything effectively. (C14R)

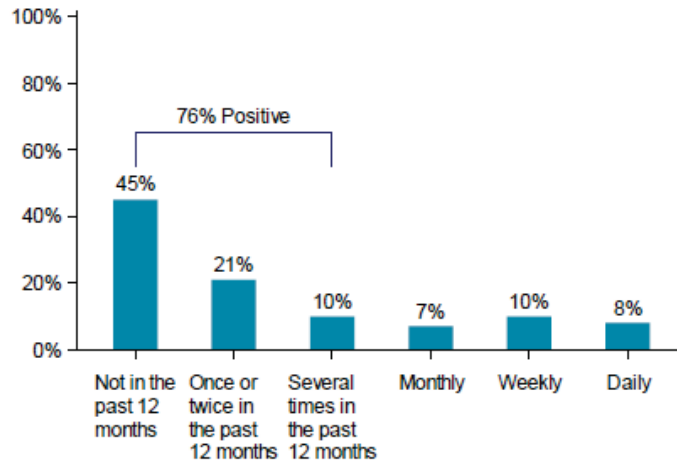
56

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).

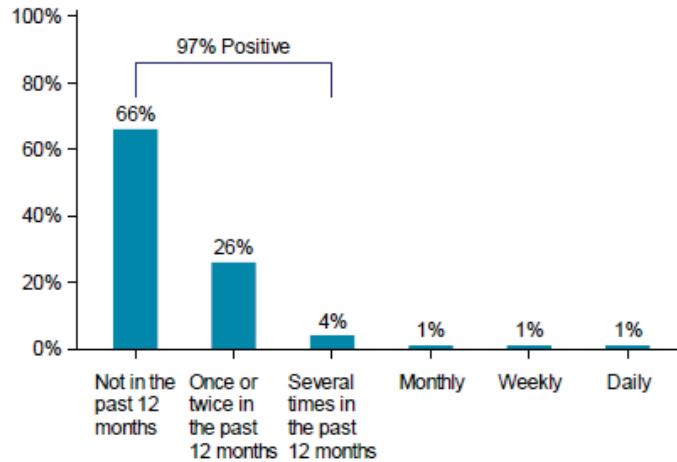
Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues – 2018 Database Medical Offices (Page 1 of 5)

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.

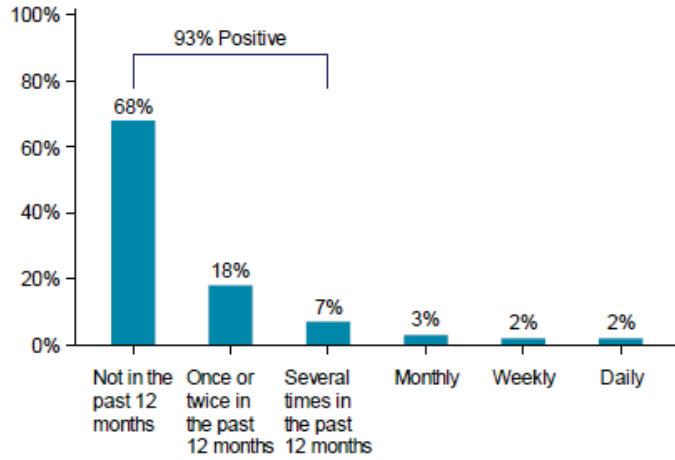


Note: (1) Percentages indicate average percent response for each item response category across the 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

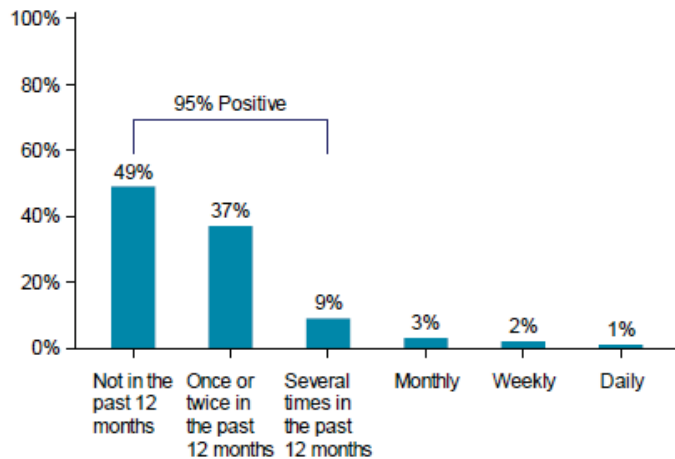
**Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues – 2018
Database Medical Offices (Page 2 of 5)**

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.

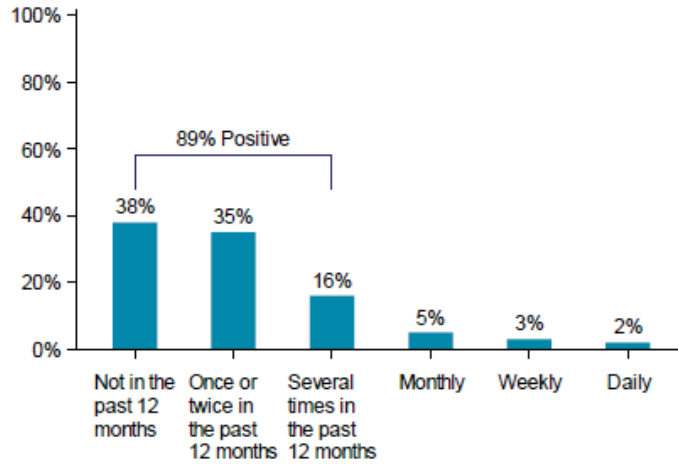


Note: (1) Percentages indicate average percent response for each item response category across the 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

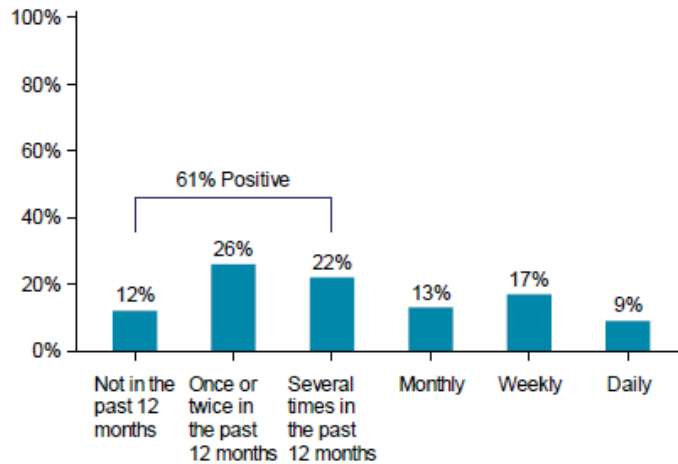
Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues – 2018 Database Medical Offices (Page 3 of 5)

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.

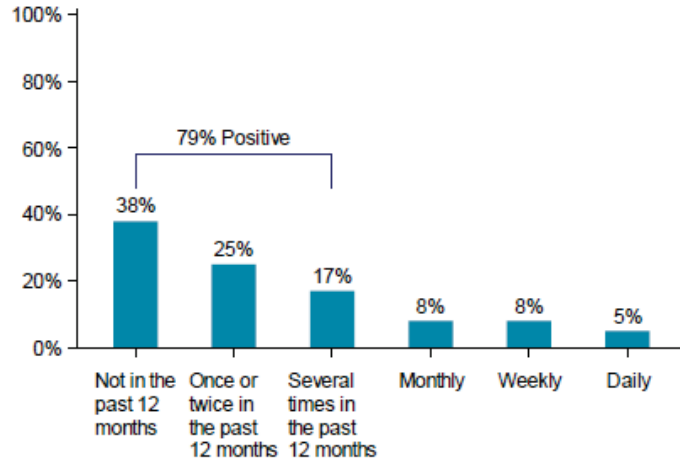


Note: (1) Percentages indicate average percent response for each item response category across the 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

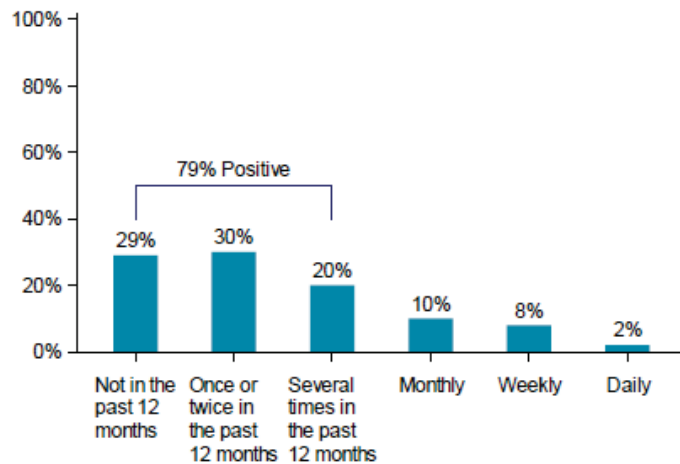
**Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues – 2018
Database Medical Offices (Page 4 of 5)**

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.

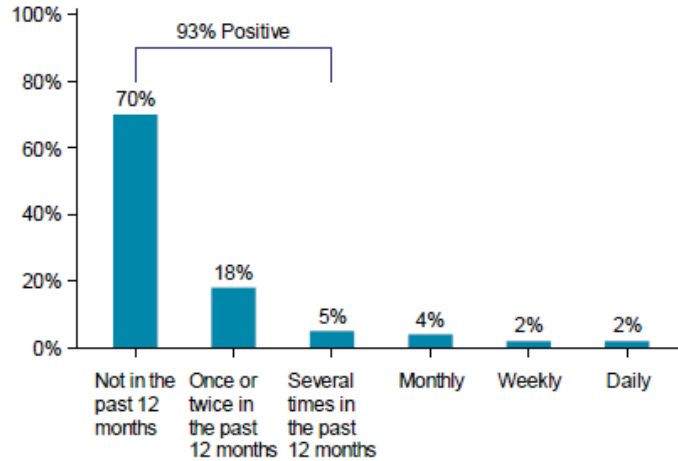


Note: (1) Percentages indicate average percent response for each item response category across the 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

**Chart 5-3. Item-Level Average Ratings on List of Patient Safety and Quality Issues – 2018
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.

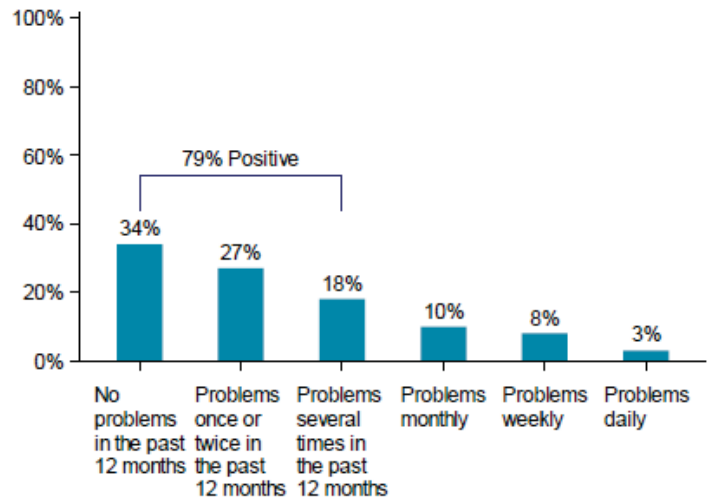


Note: (1) Percentages indicate average percent response for each item response category across the 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

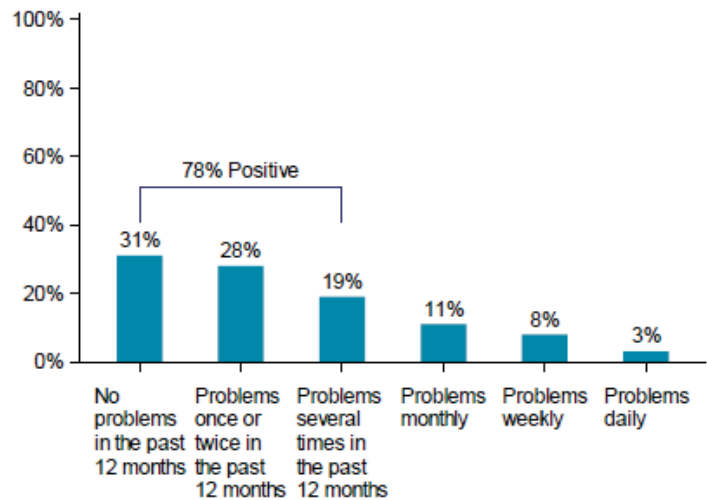
**Chart 5-4. Item-Level Average Ratings on Information Exchange With Other Settings – 2018
Database Medical Offices (Page 1 of 2)**

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?

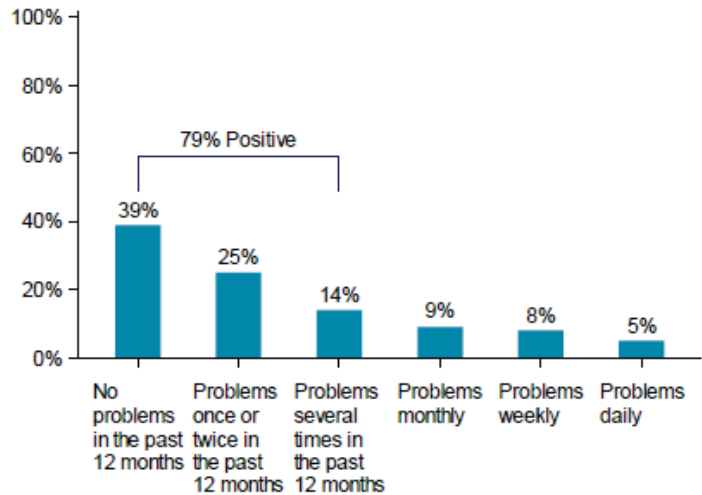


Note: (1) Percentages indicate average percent response for each item response category across the 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

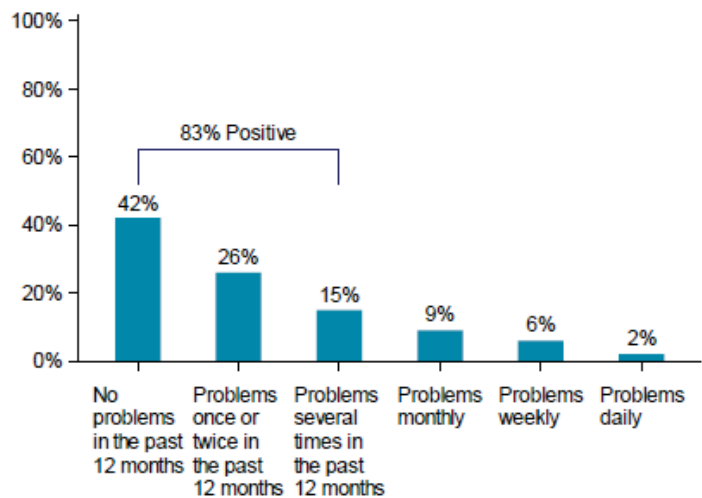
**Chart 5-4. Item-Level Average Ratings on Information Exchange With Other Settings – 2018
Database Medical Offices (Page 2 of 2)**

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

B3. Pharmacies?



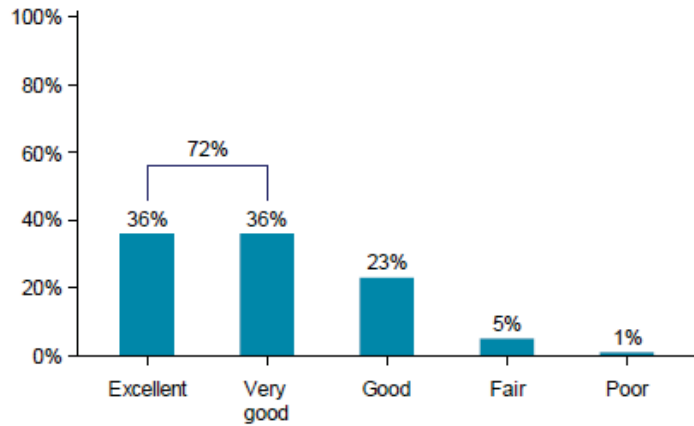
B4. Hospitals?



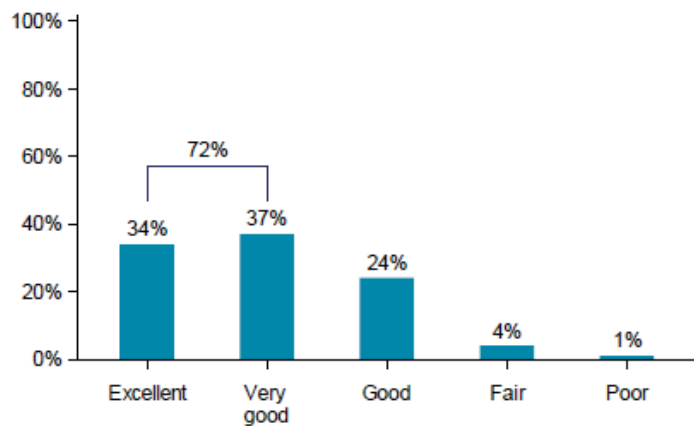
Note: (1) Percentages indicate average percent response for each item response category across the 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) all six percentages may not add to 100 percent due to rounding.

Chart 5-5. Item-Level Average Overall Ratings on Quality – 2018 Database Medical Offices (Page 1 of 3)

G1a. Patient Centered
 Is responsive to individual patient preferences, needs, and values.



G1b. Effective
 Is based on scientific knowledge.

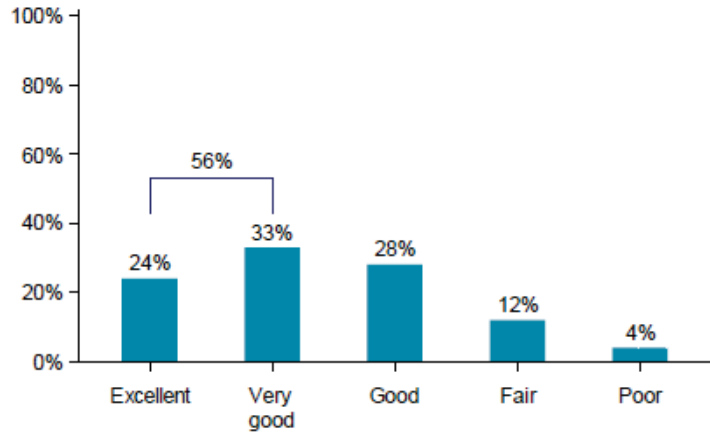


Note: (1) Percentages indicate average percent response for each item response category across the 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) percentages may not add to 100 percent due to rounding.

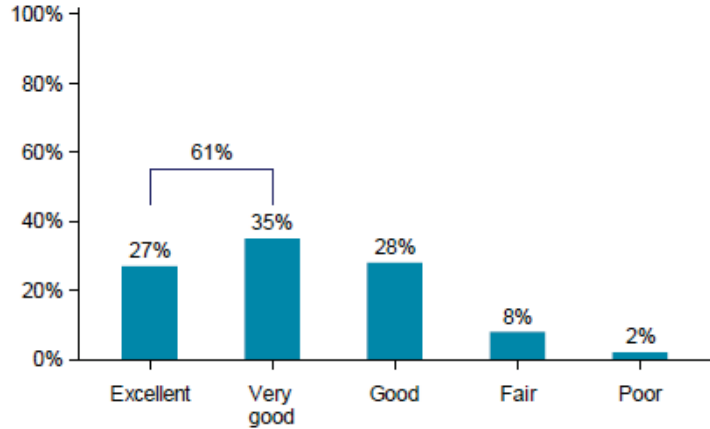
Chart 5-5. Item-Level Average Overall Ratings on Quality – 2018 Database Medical Offices (Page 2 of 3)

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 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) percentages may not add to 100 percent due to rounding.

Chart 5-5. Item-Level Average Overall Ratings on Quality – 2018 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.

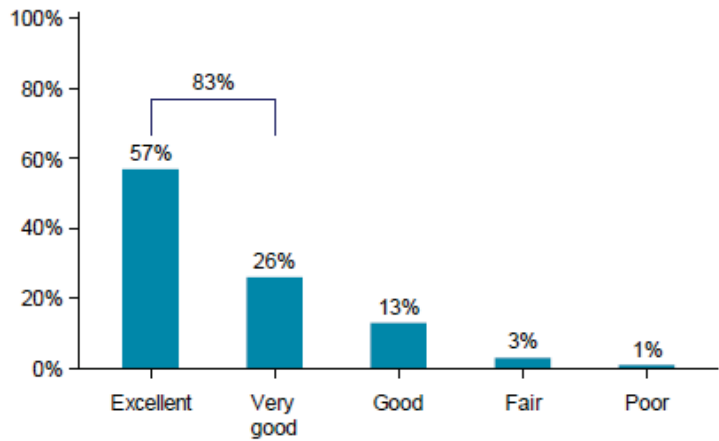
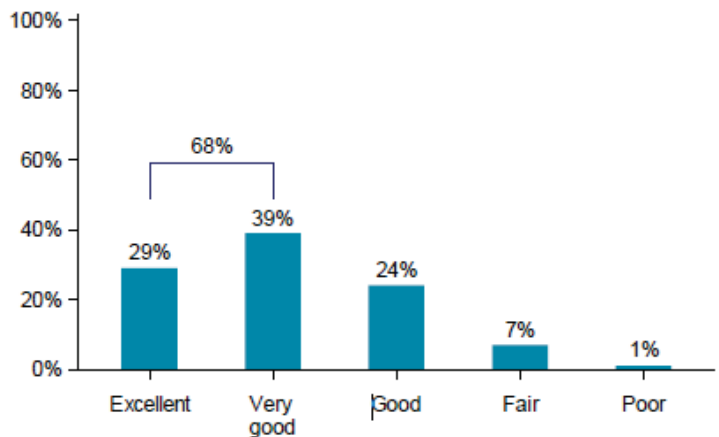


Chart 5-6. Item-Level Average Overall Rating on Patient Safety – 2018 Database Medical Offices

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 2018 database medical offices, (2) the percent positive displayed may not equal the sum of the response option percentages due to rounding, and (3) 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. These include items about 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 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.

The data provided in this report should be used to supplement your medical office's own efforts to identify areas of strength and areas on which to focus efforts to improve patient safety culture.

Highlights

- There was considerable variability in the range of database medical office scores (lowest to highest) across all 10 of the patient safety culture composites and individual items.
- Half of composites (Organizational Learning, Overall Perceptions of Patient Safety and Quality, Staff Training, Owner/Managing Partner/Leadership Support for Safety, and Work Pressure & Pace) showed a range of positive response from 0 to 100 percent positive.
- All of the items including the questions on patient safety and quality issues, information exchange with other setting and the overall ratings on quality and patient safety showed a range of positive responses from 0 to 100 percent positive.

Composite and Item-Level Tables

Table 6-1 presents statistics (average percent positive and standard deviation, minimum and maximum scores, and percentiles) for each of the 10 patient safety culture composites.

Table 6-2 presents statistics for each of the 38 survey items. The survey 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.

Table 6-3 presents statistics for items related to patient safety and quality issues; Table 6-4 presents statistics for items related to information exchange with other settings; and Table 6-5 presents statistics for overall ratings on quality and patient safety.

Table 6-1. Composite-Level Results – 2018 Database Medical Offices

Patient Safety Culture Composites	Average % Positive		Composite % Positive Response						
	s.d.	Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max	
1. Teamwork	86%	12.55%	8%	69%	81%	89%	96%	100%	100%
2. Patient Care Tracking/Followup	86%	12.92%	17%	69%	80%	89%	96%	100%	100%
3. Organizational Learning	79%	16.56%	0%	57%	69%	82%	92%	100%	100%
4. Overall Perceptions of Patient Safety and Quality	77%	17.22%	0%	55%	70%	81%	90%	96%	100%
5. Staff Training	73%	18.06%	0%	47%	62%	75%	86%	94%	100%
6. Communication About Error	72%	15.96%	6%	51%	61%	73%	83%	92%	100%
7. Communication Openness	70%	17.92%	6%	45%	57%	71%	83%	93%	100%
8. Office Processes and Standardization	67%	18.19%	4%	43%	55%	69%	81%	90%	100%
9. Owner/Managing Partner/Leadership Support for Safety	66%	18.47%	0%	42%	54%	68%	79%	88%	100%
10. Work Pressure and Pace	46%	21.22%	0%	19%	31%	45%	61%	75%	100%

Table 6-2. Item-Level Results – 2018 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)	86%	15.72%	0%	65%	78%	89%	100%	100%	100%
2. In this office, there is a good working relationship between staff and providers. (C2)	90%	13.71%	0%	71%	83%	94%	100%	100%	100%
3. In this office, we treat each other with respect. (C5)	85%	16.08%	0%	64%	76%	89%	100%	100%	100%
4. This office emphasizes teamwork in taking care of patients. (C13)	85%	15.48%	0%	65%	77%	88%	100%	100%	100%
2. Patient Care Tracking/Followup									
1. This office reminds patients when they need to schedule an appointment for preventive or routine care. (D3)	88%	16.30%	0%	67%	81%	93%	100%	100%	100%
2. This office documents how well our chronic-care patients follow their treatment plans. (D5)	80%	22.99%	0%	50%	67%	85%	100%	100%	100%
3. Our office follows up when we do not receive a report we are expecting from an outside provider. (D6)	86%	16.35%	0%	67%	78%	90%	100%	100%	100%
4. This office follows up with patients who need monitoring. (D9)	91%	14.13%	0%	73%	86%	100%	100%	100%	100%
3. Organizational Learning									
1. When there is a problem in our office, we see if we need to change the way we do things. (F1)	83%	16.75%	0%	60%	74%	86%	100%	100%	100%
2. This office is good at changing office processes to make sure the same problems don't happen again. (F5)	79%	19.24%	0%	53%	67%	82%	100%	100%	100%
3. After this office makes changes to improve the patient care process, we check to see if the changes worked. (F7)	74%	20.95%	0%	50%	63%	75%	90%	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 6-2. Item-Level Results – 2018 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. Overall Perceptions of Patient Safety and Quality									
1. Our office processes are good at preventing mistakes that could affect patients. (F2)	85%	16.90%	0%	63%	77%	89%	100%	100%	100%
2. Mistakes happen more than they should in this office. (F3R)	77%	22.93%	0%	50%	67%	81%	100%	100%	100%
3. It is just by chance that we don't make more mistakes that affect our patients. (F4R)	77%	22.04%	0%	50%	67%	80%	94%	100%	100%
4. In this office, getting more work done is more important than quality of care. (F6R)	70%	22.76%	0%	40%	57%	73%	86%	100%	100%
5. Staff Training									
1. This office trains staff when new processes are put into place. (C4)	76%	19.92%	0%	50%	65%	79%	92%	100%	100%
2. This office makes sure staff get the on-the-job training they need. (C7)	75%	20.56%	0%	50%	62%	78%	91%	100%	100%
3. Staff in this office are asked to do tasks they haven't been trained to do. (C10R)	66%	23.10%	0%	35%	53%	68%	82%	100%	100%
6. Communication About Error									
1. Staff feel like their mistakes are held against them. (D7R)	63%	25.13%	0%	29%	48%	65%	80%	100%	100%
2. Providers and staff talk openly about office problems. (D8)	64%	21.99%	0%	35%	50%	65%	80%	100%	100%
3. In this office, we discuss ways to prevent errors from happening again. (D11)	82%	17.36%	0%	58%	71%	85%	100%	100%	100%
4. Staff are willing to report mistakes they observe in this office. (D12)	79%	18.08%	0%	56%	67%	80%	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 6-2. Item-Level Results – 2018 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. Communication Openness									
1. Providers in this office are open to staff ideas about how to improve office processes. (D1)	73%	21.17%	0%	44%	60%	75%	89%	100%	100%
2. Staff are encouraged to express alternative viewpoints in this office. (D2)	73%	20.67%	0%	45%	60%	75%	89%	100%	100%
3. Staff are afraid to ask questions when something does not seem right. (D4R)	73%	22.18%	0%	45%	61%	75%	89%	100%	100%
4. It is difficult to voice disagreement in this office. (D10R)	59%	24.81%	0%	25%	43%	60%	75%	92%	100%
8. Office Processes and Standardization									
1. This office is more disorganized than it should be. (C8R)	64%	24.71%	0%	31%	50%	67%	82%	100%	100%
2. We have good procedures for checking that work in this office was done correctly. (C9)	71%	21.46%	0%	40%	57%	73%	86%	100%	100%
3. We have problems with workflow in this office. (C12R)	53%	25.51%	0%	20%	33%	50%	71%	86%	100%
4. Staff in this office follow standardized processes to get tasks done. (C15)	82%	16.81%	0%	60%	73%	85%	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 6-2. Item-Level Results – 2018 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. 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)	47%	26.09%	0%	13%	31%	50%	67%	80%	100%
2. They overlook patient care mistakes that happen over and over. (E2R)	78%	23.22%	0%	50%	67%	83%	100%	100%	100%
3. They place a high priority on improving patient care processes. (E3)	80%	20.17%	0%	50%	67%	83%	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)	59%	25.74%	0%	25%	44%	60%	77%	100%	100%
10. Work Pressure and Pace									
1. In this office, we often feel rushed when taking care of patients. (C3R)	38%	23.45%	0%	10%	21%	33%	50%	70%	100%
2. We have too many patients for the number of providers in this office. (C6R)	45%	27.23%	0%	9%	25%	43%	64%	83%	100%
3. We have enough staff to handle our patient load. (C11)	46%	26.91%	0%	12%	25%	44%	67%	83%	100%
4. This office has too many patients to be able to handle everything effectively. (C14R)	56%	26.29%	0%	20%	38%	57%	75%	94%	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 6-3. Item-Level Results on Patient Safety and Quality Issues – 2018 Database Medical Offices

A. List of Patient Safety and Quality Issues	Average % Positive	s.d.	Survey Item % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
Access to Care									
1. A patient was unable to get an appointment within 48 hours for an acute/serious problem. (A1)	76%	24.25%	0%	40%	62%	80%	100%	100%	100%
Patient Identification									
2. The wrong chart/medical record was used for a patient. (A2)	97%	12.14%	0%	90%	100%	100%	100%	100%	100%
Charts/Medical Records									
3. A patient’s chart/medical record was not available when needed. (A3)	93%	15.10%	0%	78%	91%	100%	100%	100%	100%
4. Medical information was filed, scanned, or entered into the wrong patient’s chart/medical record. (A4)	95%	13.29%	0%	85%	96%	100%	100%	100%	100%
Medical Equipment									
5. Medical equipment was not working properly or was in need of repair or replacement. (A5)	89%	16.40%	0%	69%	83%	100%	100%	100%	100%
Medication									
6. A pharmacy contacted our office to clarify or correct a prescription. (A6)	61%	26.23%	0%	27%	43%	60%	81%	100%	100%
7. A patient’s medication list was not updated during his or her visit. (A7)	79%	21.48%	0%	50%	67%	83%	100%	100%	100%
Diagnostics and Tests									
8. The results from a lab or imaging test were not available when needed. (A8)	79%	20.61%	0%	50%	67%	83%	100%	100%	100%
9. A critical <u>abnormal</u> result from a lab or imaging test was not followed up within 1 business day. (A9)	93%	15.60%	0%	75%	90%	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 6-4. Item-Level Results on Information Exchange With Other Settings – 2018 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)	79%	21.67%	0%	50%	67%	83%	100%	100%	100%
2. Other medical offices/Outside physicians? (B2)	78%	21.14%	0%	50%	67%	81%	100%	100%	100%
3. Pharmacies? (B3)	79%	21.84%	0%	50%	67%	83%	100%	100%	100%
4. Hospitals? (B4)	83%	19.92%	0%	56%	74%	88%	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 6-5. Results on Average Overall Ratings on Quality and Patient Safety – 2018 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	72%	21.06%	0%	43%	60%	74%	88%	100%	100%	
2. Effective – Is based on scientific knowledge. (G1B)										
Excellent/Very Good	72%	20.37%	0%	44%	60%	73%	86%	100%	100%	
3. Timely – Minimizes waits and potentially harmful delays. (G1C)										
Excellent/Very Good	56%	24.89%	0%	25%	39%	57%	75%	89%	100%	
4. Efficient – Ensures cost-effective care (avoids waste, overuse, and misuse of services). (G1D)										
Excellent/Very Good	61%	22.94%	0%	33%	45%	62%	78%	93%	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	83%	15.95%	0%	60%	75%	86%	100%	100%	100%	
6. Overall Rating on Patient Safety – Overall rating of the systems and clinical processes in place to prevent, catch, and correct problems that have the potential to affect patients (G2)										
Excellent/Very Good	68%	22.27%	0%	39%	52%	70%	85%	100%	100%	

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

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

The AHRQ Surveys on Patient Safety Culture are important sources of information for health care organizations striving to improve patient safety and can be used as an effective starting point for action planning to achieve changes in culture. Organizations may find it useful to brainstorm the potential barriers that make it difficult to implement initiatives and strategies to overcome them.

AHRQ Action Planning Tool

The [*Action Planning Tool for the AHRQ Surveys on Patient Safety Culture*](#) is intended for use after your organization administers the survey and analyzes the results. The first step toward improving the patient safety culture in your organization, facility, unit, or department is to develop an action plan using the Action Plan Template. You can complete the form by answering 10 key questions to help you record your goals, initiatives, resources needed, process and outcome measures, and timelines.

Define your goals and select your initiatives:

1. What areas do you want to focus on for improvement?
2. What are your goals?
3. What initiatives will you implement?

Plan your initiatives:

1. Who will be affected, and how?
2. Who can lead the initiative?
3. What resources will be needed?
4. What are possible barriers, and how can they be overcome?
5. How will you measure progress and success?
6. What is the timeline?

Communicate your action plan:

1. How will you share your action plan and with whom?

Your action plan should be flexible. The questions do not need to be answered in order. Keep in mind that as you begin to implement your plan, it may change. The complete Action Planning Tool, including the template in Microsoft® Word can be found here:

<https://www.ahrq.gov/sops/quality-patient-safety/patientsafetyculture/planningtool.html>.

Resource List for Users of the AHRQ Medical Office Survey

The AHRQ [*Resource List for Users of the AHRQ Medical Office Survey on Patient Safety Culture*](#) contains references to websites that provide practical resources medical offices can use to implement changes to improve patient safety culture and patient safety. These resources are not a complete list but are provided to give initial guidance to medical offices looking for information about patient safety initiatives. For a list of practical resources your organization can use to improve patient safety culture and patient safety, go to <https://www.ahrq.gov/sites/default/files/wysiwyg/sops/quality-patient-safety/patientsafetyculture/medofficersourcelist-020118.pdf>.

References

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Notes: Description of Data Cleaning, Calculations, and Data Limitations

This notes section provides additional detail on calculation of various statistics presented in this report and data limitations.

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 were asked to make corrections and resubmit their data. In addition, each participating medical office received a copy of its data frequencies to verify that the dataset received was correct.

The data were also cleaned for straight-lined answers, which is when respondents give the same answer for both a positively worded item (e.g., D2. Staff are encouraged to express alternative viewpoints in this office) and a negatively worded item (e.g., D4R. Staff are afraid to ask questions when something does not seem right) 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 answers across sections C, D, E, and F were deleted before analysis. Respondents who supplied either "Does not apply or Don't know" answers or had missing answers to all items across sections A, B, C, D, E, and F were also deleted before analysis. Medical offices were included in the database only if they had at least 3 survey respondents after all data cleaning steps.

Response Rates

As part of the data submission process, medical offices were asked to provide the number of completed, returned surveys and the total number of surveys distributed minus ineligible. Ineligibles include deceased individuals or those who were no longer employed at the medical office during data collection. Response rates were then calculated using the formula below:

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

Calculation of Percent Positive Scores

Most of the survey 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 use the frequency response option (Communication Openness, Patient Care Tracking/Followup, and Communication About Error) while the other nine composites use the agreement response option.

The 9 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, and
- 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, and
- Problems daily.

The Overall Ratings on Quality and Patient Safety response options range from “Poor” to “Excellent” (Poor, Fair, Good, Very good, Excellent).

Item-Level Percent Positive Response

Both positively worded items (e.g., “Staff support one another in this medical office”) and negatively worded items (e.g., “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 is the sum of the three response options that represent the smallest frequency of occurrence.

For Patient Safety and Quality Issues items, the three responses 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 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 Example

The average percent positive scores for each of the 10 patient safety culture composites and for the 38 survey items 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.

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

Three Items Measuring "Staff Training"	For Positively Worded Items, Number of "Strongly Agree" or "Agree" Responses	For Negatively Worded Items, Number of "Strongly Disagree" or "Disagree" Responses	Total Number of Responses to the Item (Excluding Does Not Apply/Don't Know and Missing Responses)	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%
Composite Score % Positive = (46% + 56% + 48%) / 3 = 50%				

*NA = Not applicable

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 percent on *Staff Training*. In this example, an average of 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 2,437 medical offices included in the 2018 database.

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 (e.g., numbers of providers and staff). 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.

Standard Deviation

The standard deviation (s.d.) is a measure of the spread or variability of medical office scores around the average. Tables in Chapter 6 tell 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.

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 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

Percentiles provide information about the distribution of medical office scores. A specific percentile score shows the percentage of medical offices that scored at or below a particular score.

Percentiles were computed using the SAS[®] software default method. The first step in this procedure is to rank 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 2,437 (the total number of medical offices) by .10 (10th percentile). The product of $n \times p$ is equal to "j+g" where "j" is the integer and "g" is the number after the decimal.

If "g" equals 0, the percentile score 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 score 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%	
7	66%	← 50 th percentile score = 65%
8	70%	
9	72%	
10	75%	
11	75%	
12	78%	

10th percentile

- For the 10th percentile, we would first multiply the number of medical offices by .10:
($n \times p = 12 \times .10 = 1.2$).
- 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 jth + 1 position:
 - “j” equals 1.
 - The 10th percentile equals the value for the medical office in the 2nd position = 48%.

50th percentile

- For the 50th percentile, we would first multiply the number of medical offices by .50:
($n \times p = 12 \times .50 = 6.0$).
- 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 jth position plus the percent positive value of the medical office in the jth + 1 position, divided by 2:
 - “j” equals 6.
 - The 50th percentile equals the average of the medical offices in the 6th and 7th positions
($64\% + 66\%$)/2 = 65%.

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 N3.

Table N3. 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. See examples below in Table N4.

Table N4. Sample Percentile Statistics

Survey Item	Survey Item % Positive Response						
	Min	10 th %ile	25 th %ile	Median/ 50 th %ile	75 th %ile	90 th %ile	Max
Item 1	8%	10%	25%	35%	49%	62%	96%

If your medical office’s score is 55%, your score falls here:

If your medical office’s score is 65%, your score falls here:

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.

Data Limitations

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

First, medical offices voluntarily submitted their data to the database; therefore, only medical offices that administered the survey and were willing to submit their data for inclusion in the database are represented. Since these voluntary submitters are not a random sample of the population of U.S. medical offices, and only a small percentage of all medical offices (about 1 percent—see Table N5) chose to participate, the submitting medical offices are not representative of all medical offices in the United States.

Estimates based on this self-selected group may produce biased estimates of the population and it is not possible to compute estimates of precision from such a self-selected group. However, the geographic distribution of the medical offices in the database is fairly consistent with the distribution of medical offices based on the 2012 U.S. Economic Census estimates.

Table N5. Distribution of AHRQ Database Medical Offices (2018) Compared With U.S. Economic Census, Offices of Physicians (2012) Data by Region

Region	AHRQ Medical Office Survey on Patient Safety Culture Database Medical Offices (2018)		U.S. Economic Census, Offices of Physicians (2012)	
	Number	Percent	Number	Percent
New England	115	5%	9,119	4%
Mid-Atlantic	187	8%	34,702	16%
South Atlantic	956	39%	46,654	21%
East North Central	464	19%	27,823	13%
East South Central	68	3%	12,083	5%
West North Central	231	9%	9,232	4%
West South Central	194	8%	27,828	13%
Mountain	180	7%	15,412	7%
Pacific	42	2%	38,037	17%
Total	2,437	100%	220,890	100%

Note: States are categorized into regions as follows:

- New England: CT, MA, ME, NH, RI, VT
- Mid-Atlantic: NJ, NY, PA
- South Atlantic: DC, DE, FL, GA, MD, NC, SC, VA, WV
- East North Central: IL, IN, MI, OH, WI
- East South Central: AL, KY, MS, TN
- West North Central: IA, KS, MN, MO, ND, NE, SD
- West South Central: AR, LA, OK, TX
- Mountain: AZ, CO, ID, MT, NM, NV, UT, WY
- Pacific: AK, CA, HI, OR, WA

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 administration modes affect the results.

Finally, the data medical offices submitted have been cleaned for out-of-range values (e.g., invalid response values due to data entry errors), blank records (where responses to all survey items were missing or “Does not apply 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.

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: Overall Results by Medical Office Characteristics

- Number of Providers
- Single Specialty vs. Multispecialty
- Specific Specialties
- Primary Care Specialties
- Ownership
- Geographic Region

Appendix B: Overall Results by Respondent Characteristics

- Staff Position
- Tenure in Current Medical Office

The breakout tables are included as appendixes because there is 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 online at <http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/medical-office/mo-reports.html>.

Highlights From Appendix A: Overall Results by Medical Office Characteristics

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

- Database medical offices with *2 providers or fewer* had the highest average percent positive across the composites (76 percent); database medical offices with *20 or more providers* had the lowest (67 percent).
- Database medical offices with *2 providers or fewer* had the highest percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very Good” (74 percent); medical offices with *20 or more providers* had the lowest (61 percent).

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

- *Single specialty* database medical offices and *Multispecialty* database medical offices had similar average percent positive response on all 10 patient safety culture composites.

- Average percent positive response (those responding “Excellent” or “Very Good”) for Overall Ratings on Quality and for the Overall Rating on Patient Safety were similar for *Single specialty* and *Multispecialty* database medical offices.

Specific Specialties (Tables A-9, A-12)

- Database medical offices that only specialized in *Surgery/General Surgery* had the highest average percent positive response across the composites (78 percent); *Neurology* and *Cardiology* had the lowest (71 percent).
- Database medical offices that only specialized in *Surgery/General Surgery* had the highest average percentage of respondents giving an Overall Rating on Patient Safety of “Excellent” or “Very Good”) (76 percent); *Pulmonary Medicine* and *Neurology* had the lowest (66 percent).

Primary Care Specialties (Tables A-13, A-16)

- *Family Practice/Family Medicine* database medical offices had the highest average percent positive response across the composites (73 percent); *General Practice* had the lowest (66 percent).
- *Family Practice/Family Medicine* and *Pediatric* database medical offices had the highest average percentage of respondents giving an Overall Rating on Patient Safety of “Excellent” or “Very Good”) (68 percent); *General Practice* had the lowest (63 percent).

Ownership (Tables A-17, A-19, A-20)

- *Provider and/or Physician* owned database medical offices had the highest average percent positive response across the composites (77 percent); *Federal, State, or Local Government* owned database medical offices had the lowest (61 percent).
- *Provider and/or Physician* owned database medical offices had the highest average percent positive scores (those responding “Excellent” or “Very Good”) on four of the five Overall Ratings on Quality.
- *Provider and/or Physician* owned database medical offices had the highest average percentage of respondents giving an Overall Rating on Patient Safety of “Excellent” or “Very Good”) (77 percent); *Federal, State, or Local Government* owned database medical offices had the lowest (43 percent).

Geographic Region (Tables A-21, A-24)

- *South Atlantic* database medical offices had the highest average percent positive response across the composites (75 percent); *West South Central* had the lowest (67 percent).
- *West South Central* database medical offices had the highest average percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very Good” (73 percent); *Pacific* had the lowest (59 percent).

Highlights From Appendix B: Overall Results by Respondent Characteristics

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

- *Management* had the highest average percent positive response across the composites (83 percent); *Nurses (RN/LVN/LPN)* had the lowest (70 percent).
- *Management* had the highest average percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very Good” (82 percent); *Nurses (RN/LVN/LPN)* had the lowest (64 percent).

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

- Respondents with *less than 1 year* in their current medical office had the highest average percent positive response across the composites (76 percent); respondents with *3 years to less than 6 years* had the lowest (70 percent).
- Respondents with *11 years or more* in their current medical office had the highest average percentage of respondents who gave their medical office an Overall Rating on Patient Safety of “Excellent” or “Very Good” (71 percent); respondents with *3 years to less than 6 years* in their current medical office had the lowest (65 percent).