SURVEYS ON PATIENT SAFETY CULTURE™

Surveys on Patient Safety Culture™

MEDICAL OFFICE SURVEY:
2022 USER DATABASE REPORT

AHRQ
Agency for Healthcare Research and Quality

PATIENT SAFETY

Surveys on Patient Safety Culture™ (SOPS®) Medical Office Survey:

2022 User Database Report

Part I

Suggested Citation:

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Overview

Surveys on Patient Safety Culture™

Findings from the 2022 Surveys on Patient Safety Culture (SOPS®) Medical Office Database

The SOPS Medical Office Survey assesses provider and staff perceptions of their organization's patient safety culture. The 2022 SOPS Medical Office Database includes data from:

1,100
Participating Medical Offices

13,277
Provider and Staff Respondents

59%
Average Medical Office Response Rate

Highest Scoring Composite Measures

Patient Care Tracking/ Followup

85%
of respondents reported their medical office "always" or "most of the time" reminds patients about appointments, documents how well patients follow treatment plans, and follows up with patients and outside providers.

Teamwork

85%
of respondents "strongly agree" or "agree" their medical office has a culture of teamwork, mutual respect, and close working relationships among staff and providers.

Lowest Scoring Composite Measure

Work Pressure and Pace

43%
of respondents "strongly agree" or "agree" that there are enough staff and providers to handle the patient load, and the office work pace is not hectic.

Overall Ratings on Quality

Highest Rated

Equitable

83%

of respondents reported that their medical office is **"Excellent"** or **"Very Good"** at providing the same quality of care to all individuals.

Lowest Rated

Timely

57%

of respondents reported that their medical office is **"Excellent"** or **"Very Good"** at minimizing waits and potentially harmful delays.

Overall Patient Safety Rating

Average respondent ratings of their medical office on patient safety

Rating	Percentage
Excellent	27%
Very Good	38%
Good	26%
Fair	7%
Poor	1%

65% of respondents gave their medical office a patient safety rating of **"Excellent"** or **"Very Good."**
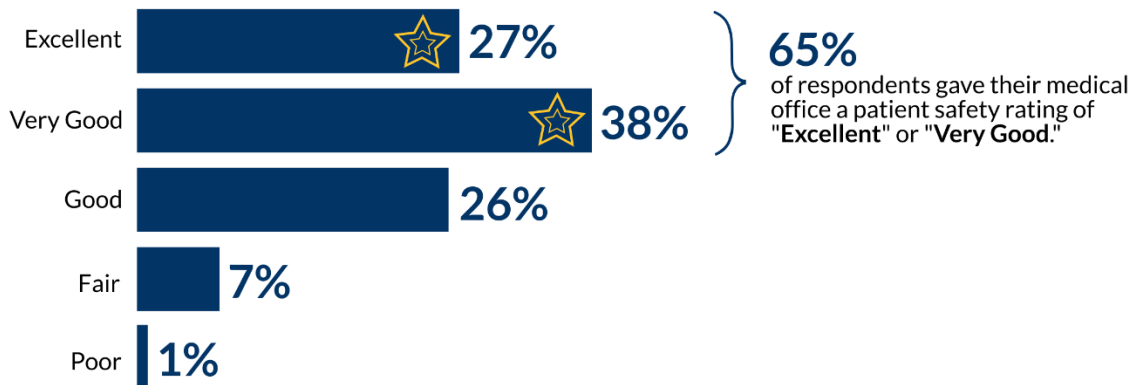
Note: Chart totals may not add to 100% due to rounding. The % "Excellent" or "Very Good" is based on unrounded numbers.

What's Next? Action planning for improving patient safety culture

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 instructions 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 their results on the Surveys on Patient Safety Culture™ (SOPS®) Medical Office Survey with results from other medical offices, the Agency for Healthcare Research and Quality (AHRQ) established the SOPS Medical Office Survey Database.

> The 2022 SOPS Medical Office User Database Report contains survey data from 1,100 medical offices and includes 13,277 provider and staff respondents. Participating medical offices administered the SOPS Medical Office Survey from November 2019 through October 2021, so most administered the survey during the COVID-19 pandemic, which may have affected their survey scores.
>
> Chapter 7 of this report shows scores from the 2022 Database compared with prior Databases.

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

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

1 Introduction

Organizational culture refers to the beliefs, values, and norms shared by staff throughout an 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 (see Figure 1).

Figure 1.   Definition of Patient Safety Culture
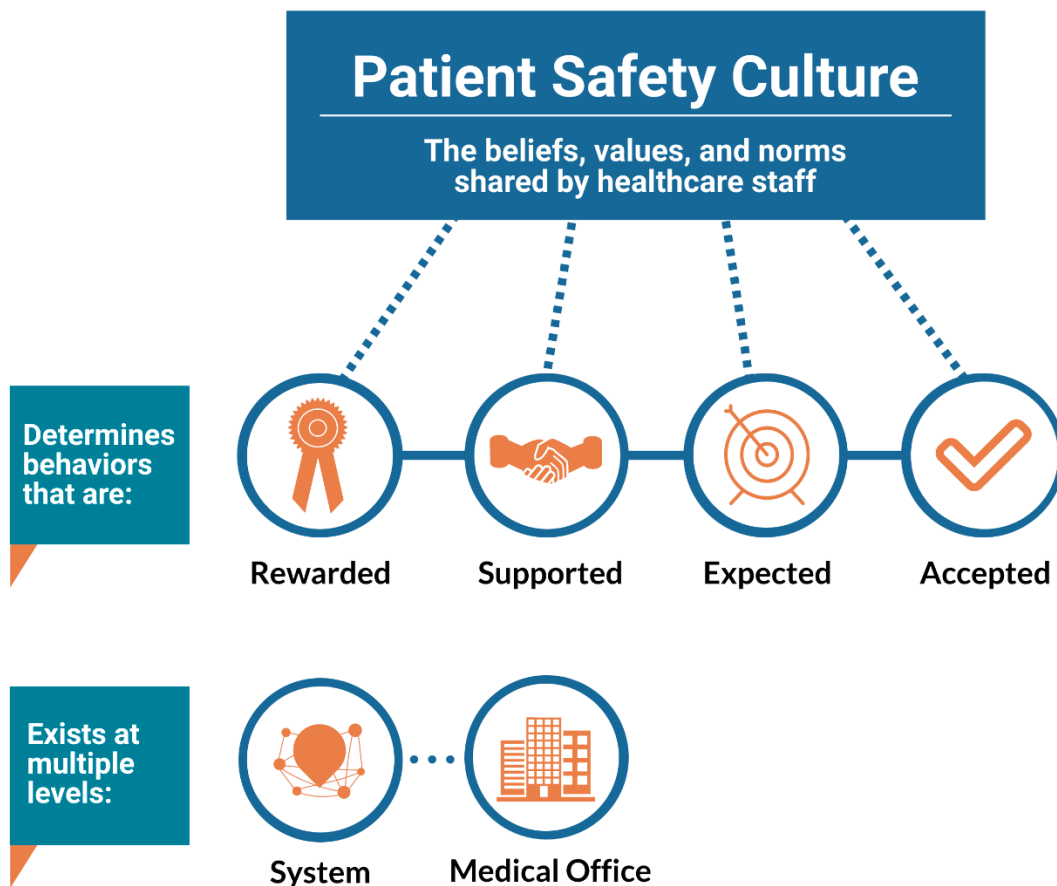
Survey Content

AHRQ funded the development of the SOPS Medical Office Survey, which includes 38 items that make up 10 composite measures. Table 1-1 defines each composite measure.

Table 1-1. SOPS Medical Office Survey Composite Measures and Definitions

SOPS Medical Office Survey Composite Measures	Definition: The extent to which…
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.

The survey also includes single-item measures about how often medical offices have problems exchanging information with other settings and how often they have other patient safety and quality issues. Respondents are also asked to rate their medical office in five areas of healthcare 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 information.

2 Survey Administration Statistics

This chapter presents descriptive information on the number of medical offices and survey respondents included in the 2022 SOPS Medical Office Database, as well as information about response rates (Table 2-1) and how medical offices administered the survey (Table 2-2).

Highlights

1,100
Participating Medical Offices

13,277
Respondents

59%
Average Medical Office Response Rate

Table 2-1. Overall Response Statistics - 2022 SOPS Medical Office Database

Overall Response Information	Statistic
Number of respondents	13,277
Number of surveys distributed	29,825
Overall response rate	45%
Average Response Information	**Statistic**
Average number of respondents per medical office (range: 3 to 98)	12
Average number of surveys distributed per medical office (range: 5 to 428)	27
Average medical office response rate (range: 3% to 100%)	59%

Table 2-2. Survey Administration Mode Statistics - 2022 SOPS Medical Office Database

Survey Administration Mode	Medical Offices		Respondents		Average Response Rate
	Number	Percent	Number	Percent	Percent
Paper only	38	3%	608	5%	72%
Web only	1,029	94%	12,413	93%	58%
Both paper and web	33	3%	256	2%	52%
Total	1,100	100%	13,277	100%	--

3 Medical Office Characteristics

This chapter presents information about the characteristics of medical offices included in the 2022 SOPS Medical Office Database, including number of providers, ownership, number of specialties (single vs. multispecialty), and regions (Table 3-1). This chapter also includes the distribution of single-specialty medical offices by specialty (Table 3-2).

Highlights

46%
of participating medical offices have
4-9 providers per week.

87%
of participating medical offices are
owned by a hospital or health system.

81%
of participating medical offices are
single specialty.

Table 3-1. Distribution of 2022 SOPS Medical Office Database by Medical Office Characteristics

Medical Office Characteristics	Medical Offices (n=1,100)		Respondents (n=13,277)	
Number of Providers	**Number**	**Percent**	**Number**	**Percent**
1	109	10%	1,117	8%
2	110	10%	774	6%
3	148	13%	1,083	8%
4-9	508	46%	5,513	42%
10-13	107	10%	1,792	13%
14-19	62	6%	1,150	9%
20 or more	56	5%	1,848	14%
Ownership	**Number**	**Percent**	**Number**	**Percent**
Hospital or health system	955	87%	11,085	83%
University or academic medical center	66	6%	886	7%
Providers and/or physicians	24	2%	519	4%
Community health center	47	4%	663	5%
Other	8	1%	124	1%
Single Specialty vs. Multispecialty	**Number**	**Percent**	**Number**	**Percent**
Single specialty	891	81%	10,405	78%
Multispecialty	209	19%	2,872	22%
Geographic Region	**Number**	**Percent**	**Number**	**Percent**
New England	69	6%	626	5%
Mid-Atlantic	22	2%	235	2%
South Atlantic	397	36%	4,819	36%
East North Central	203	18%	2,263	17%
East South Central	122	11%	1,539	12%
West North Central	168	15%	2,172	16%
West South Central	18	2%	119	1%
Mountain	20	2%	369	3%
Pacific	81	7%	1,135	9%

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. Distribution of 2022 SOPS Medical Office Database by Specific Specialties of Single-Specialty Medical Offices

Specialty	Number of Medical Offices	Percent
Allergy/Immunology	5	1%
Anesthesiology	3	<1%
Cardiology	56	6%
Child and Adolescent Psychiatry	2	<1%
Dermatology	4	<1%
Diagnostic Radiology	2	<1%
Emergency Medicine	16	2%
Endocrinology/Metabolism	20	2%
Family Practice/Family Medicine	219	25%
Gastroenterology	18	2%
General Practice	15	2%
General Preventive Medicine	1	<1%
General Surgery	7	1%
Geriatrics	1	<1%
Hematology/Oncology	29	3%
Internal Medicine	43	5%
Medical Genetics	1	<1%
Nephrology	3	<1%
Neurology	24	3%
Nuclear Medicine	1	<1%
Obstetrics/Gynecology (OB/GYN) or GYN	72	8%
Ophthalmology	12	1%
Orthopedics	34	4%
Other specialty	85	10%
Otolaryngology	14	2%
Pediatrics	58	7%
Physical Medicine and Rehabilitation	12	1%
Psychiatry	22	2%
Public Health and Rehabilitation	3	<1%
Pulmonary Medicine	21	2%
Radiology	2	<1%
Rheumatology	9	1%
Surgery (All)	56	6%
Urology	19	2%
Vascular Medicine	2	<1%
Total	**891**	**100%**

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

4 Respondent Characteristics

This chapter describes the characteristics of the 13,277 respondents in the 2022 SOPS Medical Office Database (Table 4-1).

Highlights

Most Prevalent Medical Office Staff Positions

27% of respondents were **other clinical staff or clinical support staff**.

Most Prevalent Staff Tenure

27% of respondents have worked in their medical office for **1 year to less than 3 years**.

Table 4-1. Distribution of 2022 SOPS Medical Office Database by Respondent Characteristics

Respondent Characteristics	Respondents	
Staff Position	**Number**	**Percent**
Other clinical staff or clinical support staff	3,381	27%
Administrative or clerical staff	2,906	23%
Registered nurse (RN), licensed vocational nurse (LVN), licensed practical nurse (LPN)	2,019	16%
Physician (M.D. or D.O.)	1,651	13%
Physician assistant, nurse practitioner, clinical nurse specialist, nurse midwife, advanced practice nurse, etc.	1,055	9%
Management	958	8%
Other position	404	3%
Total	12,374	100%
Missing	903	
Overall total	13,277	
Tenure in Medical Office	**Number**	**Percent**
Less than 2 months	276	2%
2 months to less than 1 year	1,850	15%
1 year to less than 3 years	3,248	27%
3 years to less than 6 years	2,670	22%
6 years to less than 11 years	1,909	16%
11 years or more	2,155	18%
Total	12,108	100%
Missing	1,169	
Overall	13,277	
Hours Worked per Week in Medical Office	**Number**	**Percent**
1 to 4 hours	101	1%
5 to 16 hours	355	3%
17 to 24 hours	549	4%
25 to 32 hours	878	7%
33 to 40 hours	7,789	64%
41 hours or more	2,543	21%
Total	12,215	100%
Missing	1,062	
Overall	13,277	

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

5 Overall Results

This chapter presents overall findings from the 2022 SOPS Medical Office Database. We present the average percentage of positive responses for each of the survey's composite measures and items, summarized for all medical offices. Reporting the average for all medical offices ensures that each medical office's scores receive equal weight, regardless of the office's size. An alternative method would be to report the percentage of positive responses summarized for all respondents, but this method would give greater weight to larger medical offices. Reporting the data at the medical office, rather than the respondent level, is important because culture is considered to be a group characteristic, not an individual characteristic.

Highlights

HIGHEST SCORING COMPOSITE MEASURES

Patient Care Tracking/Followup

85%

of respondents reported that the office reminds patients about appointments, documents how well patients follow treatment plans, and follows up with patients and outside providers.

Teamwork

85%

of respondents reported that the office has a culture of teamwork, mutual respect, and close working relationships among staff and providers.

LOWEST SCORING COMPOSITE MEASURE

Work Pressure and Pace

43%

of respondents reported there are enough staff and providers to handle the patient load, and the office work pace is not hectic.

Composite Measure and Item Charts

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

Composite Measure Results

Chart 5-1 shows the average percent positive response for each of the 10 SOPS composite measures, summarized for all medical offices in the database. The SOPS composite measures are shown in order from the highest average percent positive response to the lowest.

Item Results

Chart 5-2 shows the average percent positive response for each of the 38 survey items in the composite measures. Items are listed in their respective composite measure, in the order in which they appear in the survey.

Chart 5-3 shows the item average ratings on patient safety and quality issues.

Chart 5-4 shows the item average ratings on information exchange with other settings.

Overall Ratings on Quality

Chart 5-5 shows the results for overall ratings on quality.

Overall Rating 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.

Chart 5-1. Composite Measure Results
Average Percent Positive Response – 2022 SOPS Medical Office Database

Patient Safety Culture Composite Measures	Average % Positive Response
Patient Care Tracking/Followup	85
Teamwork	85
Organizational Learning	76
Overall Perceptions of Patient Safety and Quality	75
Communication About Error	72
Staff Training	70
Communication Openness	69
Office Processes and Standardization	65
Owner/Managing Partner/Leadership Support for Patient Safety	63
Work Pressure and Pace	43
Composite Measure Average	71

Note: (1) Each composite measure is the average of the unrounded composite measure scores for all medical offices in the database. (2) The Composite Measure Average is the average of the 10 unrounded composite measure scores for each medical office in the database.

Chart 5-2. Item Results
       Average Percent Positive Response – 2022 SOPS Medical Office Database
       (Page 1 of 4)

1. Patient Care Tracking/Followup

Average % Positive Response

This office reminds patients when they need to schedule an appointment for preventive or routine care. (Item D3)

87

This office documents how well our chronic-care patients follow their treatment plans. (Item D5)

78

Our office follows up when we do not receive a report we are expecting from an outside provider. (Item D6)

85

This office follows up with patients who need monitoring. (Item D9)

89

2. Teamwork

When someone in this office gets really busy, others help out. (Item C1)

83

In this office, there is a good working relationship between staff and providers. (Item C2)

89

In this office, we treat each other with respect. (Item C5)

84

This office emphasizes teamwork in taking care of patients. (Item C13)

84

3. Organizational Learning

When there is a problem in our office, we see if we need to change the way we do things. (Item F1)

80

This office is good at changing office processes to make sure the same problems don't happen again. (Item F5)

76

After this office makes changes to improve the patient care process, we check to see if the changes worked. (Item F7)

71

Note: The item's survey location is shown in parentheses after the item text. An * denotes a negatively worded item, where the % Disagree/Strongly Disagree or % Rarely/Never indicates a positive response.

4. Overall Perceptions of Patient Safety and Quality

Average % Positive Response

Our office processes are good at preventing mistakes that could affect patients. (Item F2)

	84

Mistakes happen more than they should in this office. (Item F3*)

	75

It is just by chance that we don't make more mistakes that affect our patients. (Item F4*)

	75

In this office, getting more work done is more important than quality of care. (Item F6*)

	67

5. Communication About Error

Providers and staff talk openly about office problems. (Item D8)

	63

In this office, we discuss ways to prevent errors from happening again. (Item D11)

	81

Staff are willing to report mistakes they observe in this office. (Item D12)

	78

Staff feel like their mistakes are held against them. (Item D7*)

	64

6. Staff Training

This office trains staff when new processes are put into place. (Item C4)

	73

This office makes sure staff get the on-the-job training they need. (Item C7)

	73

Staff in this office are asked to do tasks they haven't been trained to do. (Item C10*)

	65

Note: The item's survey location is shown in parentheses after the item text. An * denotes a negatively worded item, where the % Disagree/Strongly Disagree or % Rarely/Never indicates a positive response.

Chart 5-2. Item Results
        Average Percent Positive Response – 2022 SOPS Medical Office Database
        (Page 3 of 4)

7. Communication Openness   Average % Positive Response

Providers in this office are open to staff ideas about how to improve office processes. (Item D1)

| 74 |

Staff are encouraged to express alternative viewpoints in this office. (Item D2)

| 73 |

Staff are afraid to ask questions when something does not seem right. (Item D4*)

| 73 |

It is difficult to voice disagreement in this office. (Item D10*)

| 59 |

8. Office Processes and Standardization

We have good procedures for checking that work in this office was done correctly. (Item C9)

| 68 |

Staff in this office follow standardized processes to get tasks done. (Item C15)

| 81 |

This office is more disorganized than it should be. (Item C8*)

| 62 |

We have problems with workflow in this office. (Item C12*)

| 50 |

Note: The item's survey location is shown in parentheses after the item text. An * denotes a negatively worded item, where the % Disagree/Strongly Disagree or % Rarely/Never indicates a positive response.

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

Average % Positive Response

They place a high priority on improving patient care processes. (Item E3)

75

They aren't investing enough resources to improve the quality of care in this office. (Item E1*)

44

They overlook patient care mistakes that happen over and over. (Item E2*)

76

They make decisions too often based on what is best for the office rather than what is best for patients. (Item E4*)

55

10. Work Pressure and Pace

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

40

In this office, we often feel rushed when taking care of patients. (Item C3*)

37

We have too many patients for the number of providers in this office. (Item C6*)

42

This office has too many patients to be able to handle everything effectively. (Item C14*)

52

Note: The item's survey location is shown in parentheses after the item text. An * denotes a negatively worded item, where the % Disagree/Strongly Disagree or % Rarely/Never indicates a positive response.

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

A1. A patient was unable to get an appointment within 48 hours for an acute/serious problem.
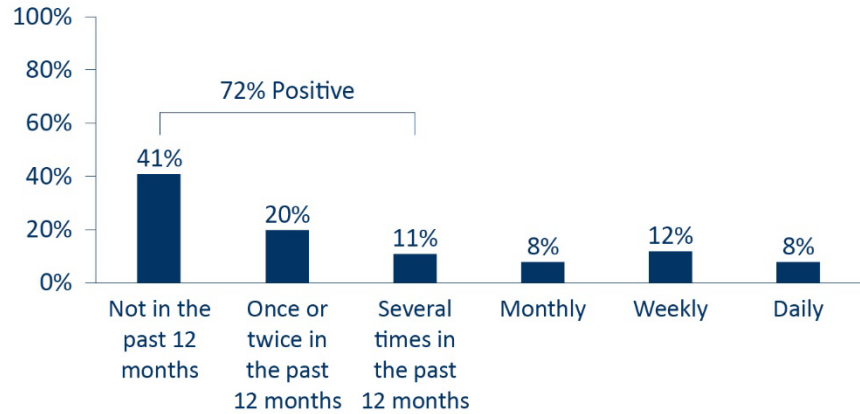
A2. The wrong chart/medical record was used for a patient.
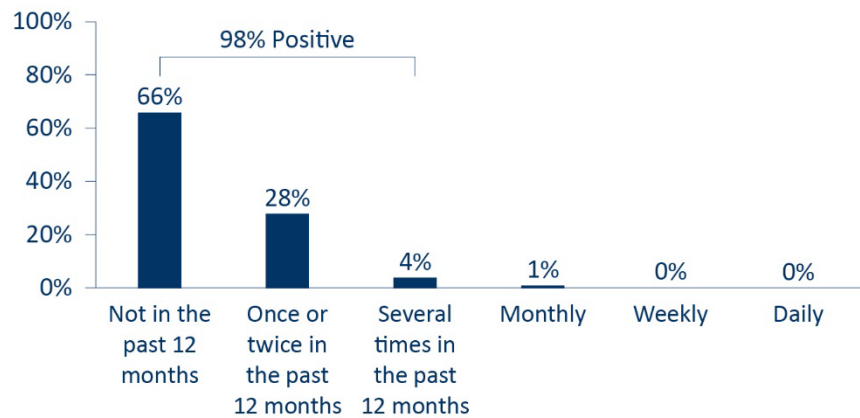
Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.

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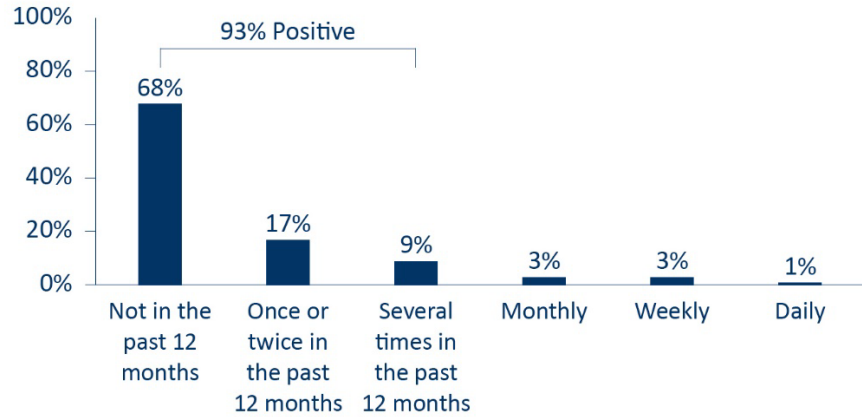
A4. Medical information was filed, scanned, or entered into the wrong patient's chart/medical record.

Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.

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

A5. Medical equipment was not working properly or was in need of repair or replacement.
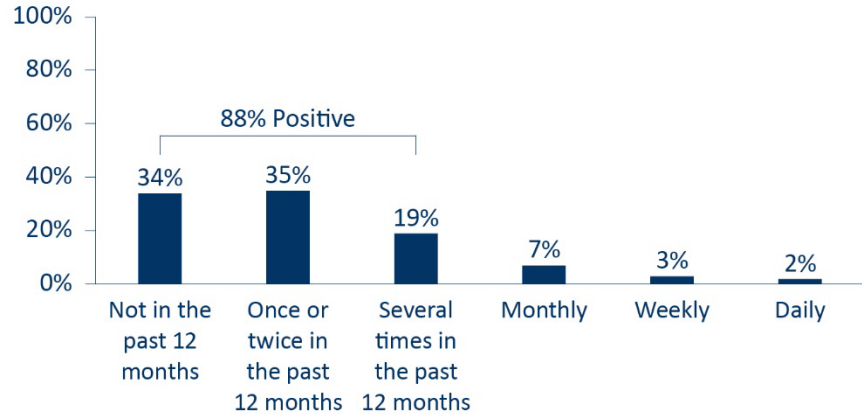
A6. A pharmacy contacted our office to clarify or correct a prescription.
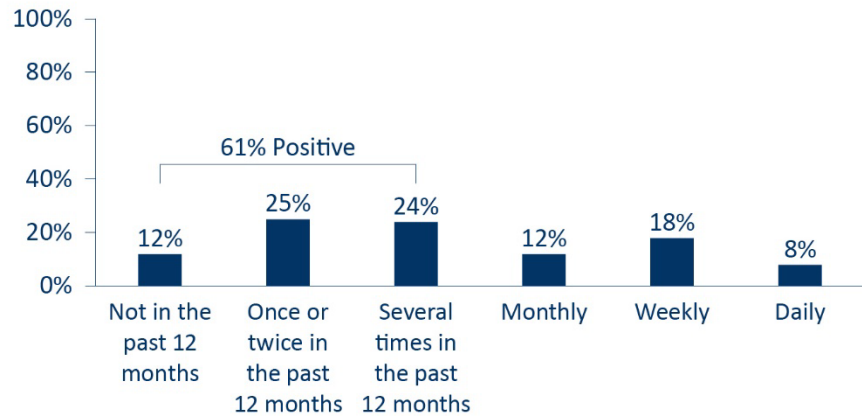
Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.

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

A7. A patient's medication list was not updated during his or her visit.
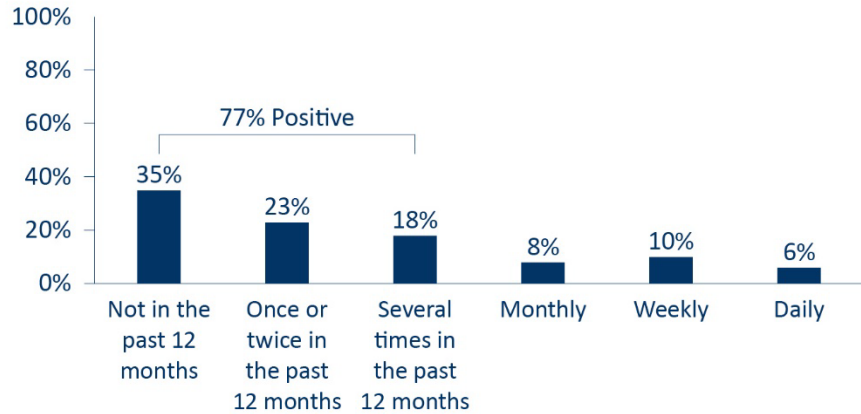
A8. The results from a lab or imaging test were not available when needed.

Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.

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.

94% Positive

| Not in the past 12 months	Once or twice in the past 12 months	Several times in the past 12 months	Monthly	Weekly	Daily
70%	17%	7%	3%	2%	1%

Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.

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

B1. Outside labs/imaging centers?

75% Positive

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
31%	25%	18%	12%	10%	3%

B2. Other medical offices/ outside physicians?

75% Positive

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
29%	26%	19%	12%	10%	3%

Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.
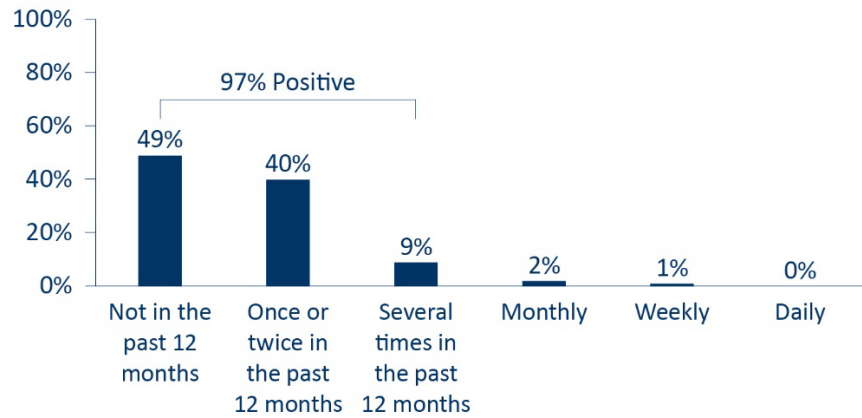
Chart 5-4. Item Results

Average Percentage Response on Information Exchange With Other Settings – 2022 SOPS Medical Office Database (Page 2 of 2)

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

B3. Pharmacies?

78% Positive

37%	25%	16%	9%	9%	4%
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

B4. Hospitals?

83% Positive

|					
43%	25%	15%	8%	6%	2%
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

Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.

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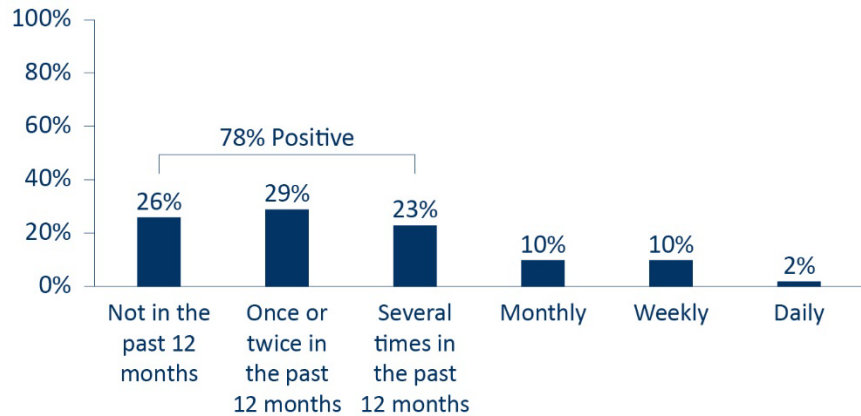
Is responsive to individual patient preferences, needs, and values.

G1b. Effective

Is based on scientific knowledge.
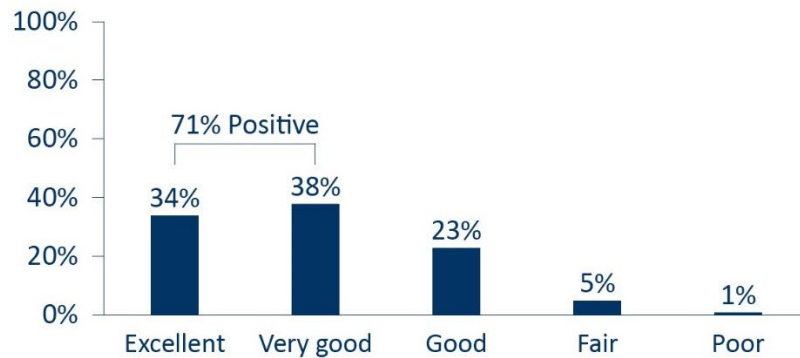
G1c. Timely

Minimizes waits and potentially harmful delays.
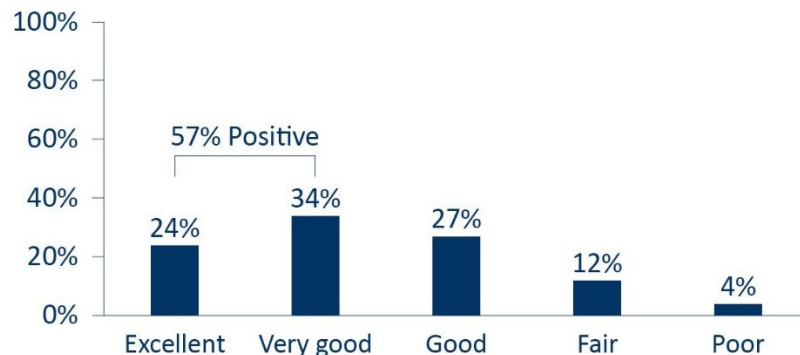
Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.

G1d. Efficient

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

60% Positive

25%	35%	28%	10%	2%
Excellent	Very good	Good	Fair	Poor

G1e. Equitable

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

83% Positive

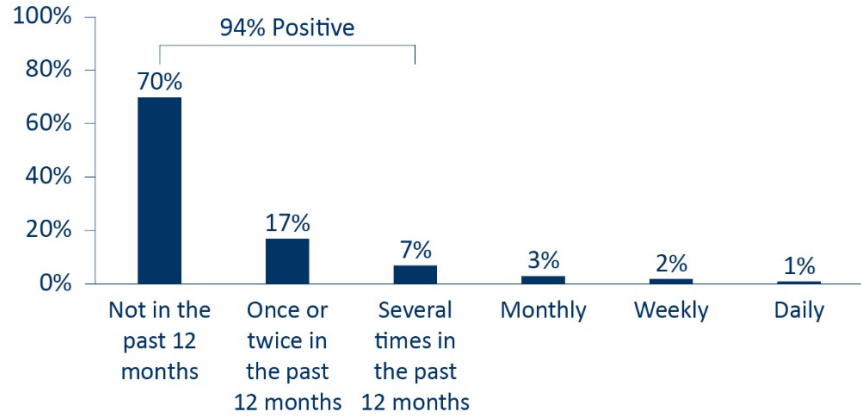|				
54%	29%	13%	3%	1%
Excellent	Very good	Good	Fair	Poor

Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.

Chart 5-6. Item Results

Average Overall Rating on Patient Safety — 2022 SOPS Medical Office Database

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
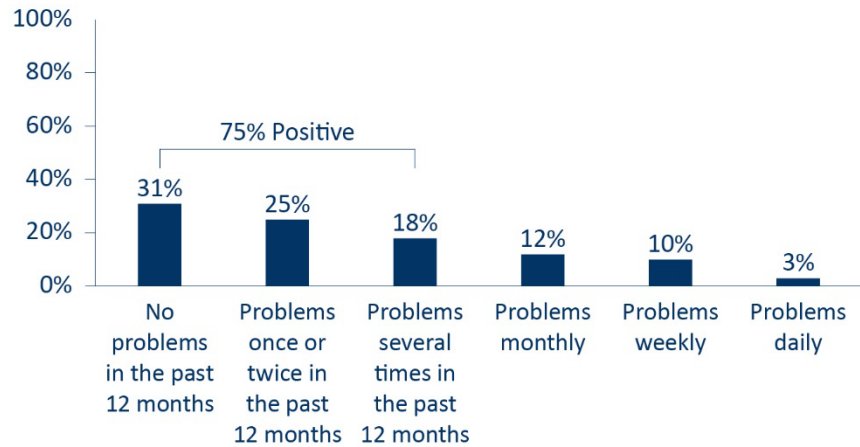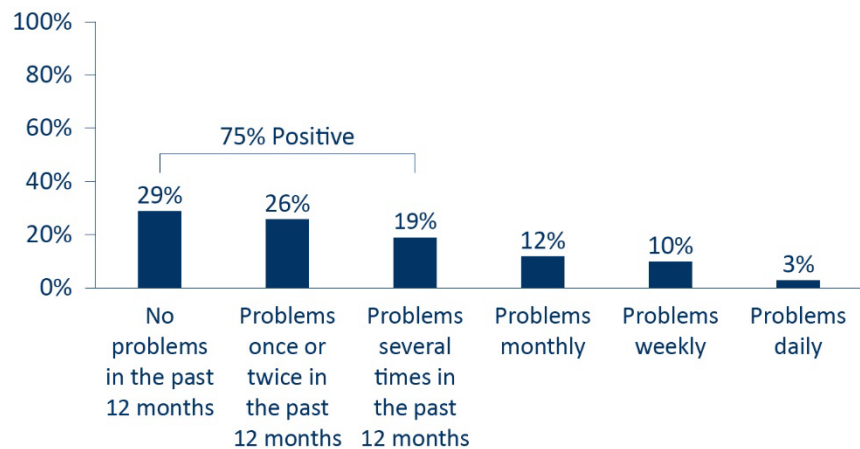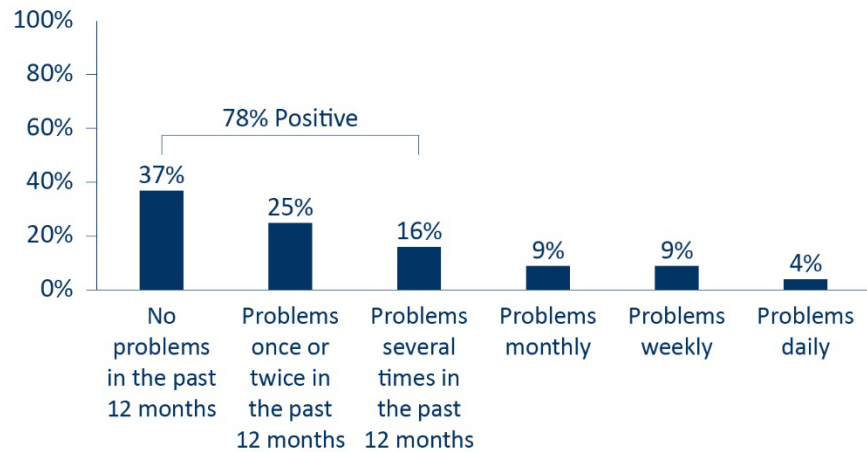   potential to affect patients?
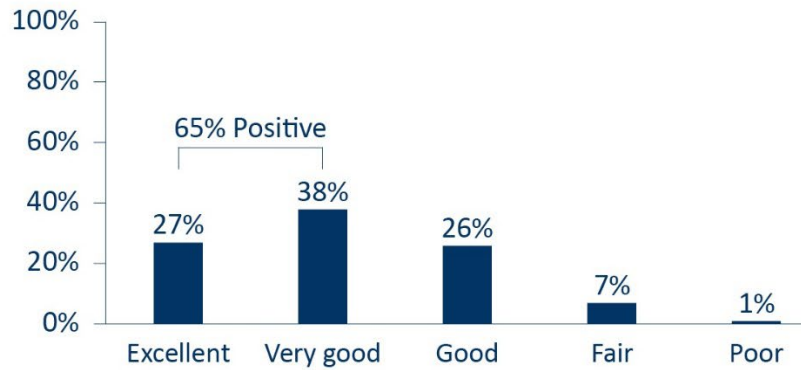
Note: Percentages indicate the database average percent response for each item response option. The percent positive displayed might not equal the sum of the response option percentages due to rounding. Percentages might not add to 100 percent due to rounding.

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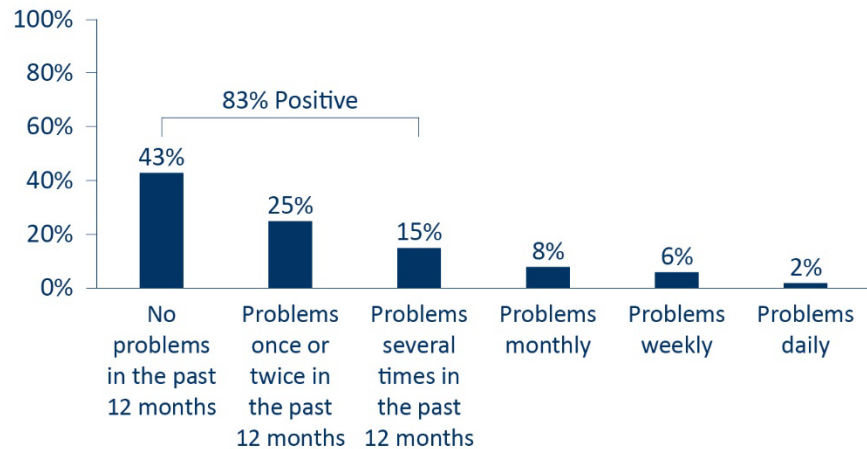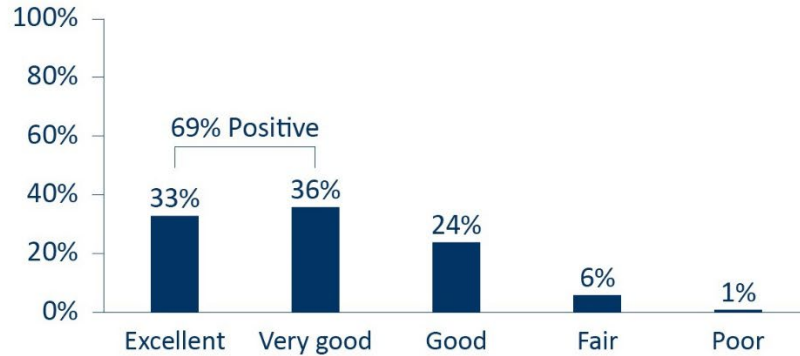
The data in this report should be used to supplement your medical office's efforts to identify areas of strength and areas on which to focus efforts to improve patient safety culture.

To compare a medical office's survey results with the aggregated findings from the database, calculate the medical office's percent positive response on the survey's 10 composite measures 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. Individual medical office results can then be compared with the database averages and the percentile scores for all medical offices in the database.

When comparing your medical office's results with results from the database, note that the database only provides *relative* comparisons. Although your medical office's survey results might have higher percent positive results than the database statistics, there might still be room for improvement in a particular area within your medical office in an *absolute* sense.

Composite Measure and Item Tables

Table 6-1 presents statistics (average percent positive, standard deviation [s.d.], minimum and maximum scores, and percentiles) for each of the 10 SOPS composite measures.

Table 6-2 presents statistics for each of the 38 survey items in the composite measures. Items are listed in their respective composite measure, in the order in which they appear in the survey.

Table 6-3 presents statistics for items on patient safety and quality issues.

Table 6-4 presents statistics for items on information exchange with other settings.

Table 6-5 presents statistics for overall ratings on quality and patient safety.

Table 6-1. Composite Measure Results – 2022 SOPS Medical Office Database

SOPS Composite Measures	Average % Positive	s.d.	Composite Measure % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
1. Patient Care Tracking/Followup	85%	12.42%	36%	69%	78%	88%	95%	100%	100%
2. Teamwork	85%	13.26%	25%	67%	78%	88%	96%	100%	100%
3. Organizational Learning	76%	19.46%	0%	50%	67%	78%	89%	98%	100%
4. Overall Perceptions of Patient Safety and Quality	75%	18.90%	6%	47%	65%	80%	89%	96%	100%
5. Communication About Error	72%	16.65%	17%	49%	59%	74%	84%	93%	100%
6. Staff Training	70%	18.22%	0%	44%	58%	72%	85%	93%	100%
7. Communication Openness	69%	18.86%	0%	43%	57%	71%	83%	94%	100%
8. Office Processes and Standardization	65%	19.14%	5%	41%	51%	66%	79%	91%	100%
9. Owner/Managing Partner/Leadership Support for Patient Safety	63%	19.24%	5%	36%	50%	64%	76%	88%	100%
10. Work Pressure and Pace	43%	21.93%	0%	16%	26%	41%	57%	75%	100%
Composite Measure Average	71%	13.62%	26%	52%	61%	72%	81%	87%	98%

Note: (1) Each composite measure is the average of the unrounded composite measure scores for all medical offices in the database. (2) The Composite Measure Average is the average of the 10 unrounded composite measure scores for each medical office in the database.

Table 6-2. Item Results – 2022 SOPS Medical Office Database (Page 1 of 5)

Survey Items by SOPS Composite Measure	Average % Positive	s.d.	Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
1. Patient Care Tracking/Followup				% Most of the Time/Always					
This office reminds patients when they need to schedule an appointment for preventive or routine care. (Item D3)	87%	15.49%	0%	67%	80%	91%	100%	100%	100%
This office documents how well our chronic-care patients follow their treatment plans. (Item D5)	78%	20.23%	0%	50%	67%	80%	100%	100%	100%
Our office follows up when we do not receive a report we are expecting from an outside provider. (Item D6)	85%	16.16%	20%	64%	75%	88%	100%	100%	100%
This office follows up with patients who need monitoring. (Item D9)	89%	13.99%	20%	67%	83%	95%	100%	100%	100%
2. Teamwork				% Agree/Strongly Agree					
When someone in this office gets really busy, others help out. (Item C1)	83%	16.90%	0%	60%	73%	86%	100%	100%	100%
In this office, there is a good working relationship between staff and providers. (Item C2)	89%	13.60%	17%	71%	82%	93%	100%	100%	100%
In this office, we treat each other with respect. (Item C5)	84%	17.07%	0%	63%	75%	88%	100%	100%	100%
This office emphasizes teamwork in taking care of patients. (Item C13)	84%	16.54%	0%	60%	75%	86%	100%	100%	100%

Note: The item's survey location is shown after the item text. An * denotes a negatively worded item, where the % Disagree/Strongly Disagree or % Rarely/Never indicates a positive response.

Survey Items by SOPS Composite Measure	Average % Positive	s.d.	Survey Item % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
3. Organizational Learning						% Agree/Strongly Agree			
When there is a problem in our office, we see if we need to change the way we do things. (Item F1)	80%	19.11%	0%	56%	67%	83%	100%	100%	100%
This office is good at changing office processes to make sure the same problems don't happen again. (Item F5)	76%	22.03%	0%	50%	67%	80%	95%	100%	100%
After this office makes changes to improve the patient care process, we check to see if the changes worked. (Item F7)	71%	22.70%	0%	40%	58%	75%	88%	100%	100%
4. Overall Perceptions of Patient Safety and Quality						% Agree/Strongly Agree			
Our office processes are good at preventing mistakes that could affect patients. (Item F2)	84%	17.23%	17%	60%	75%	88%	100%	100%	100%
						% Disagree/Strongly Disagree			
Mistakes happen more than they should in this office. (Item F3*)	75%	25.98%	0%	38%	64%	80%	100%	100%	100%
It is just by chance that we don't make more mistakes that affect our patients. (Item F4*)	75%	23.41%	0%	44%	67%	79%	91%	100%	100%
In this office, getting more work done is more important than quality of care. (Item F6*)	67%	24.76%	0%	33%	50%	71%	86%	100%	100%

Note: The item's survey location is shown after the item text. An * denotes a negatively worded item, where the % Disagree/Strongly Disagree or % Rarely/Never indicates a positive response.

Survey Items by SOPS Composite Measure	Average % Positive	s.d.	Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
								Survey Item % Positive Response	
5. Communication About Error						% Most of the Time/Always			
Providers and staff talk openly about office problems. (Item D8)	63%	22.47%	0%	33%	50%	64%	80%	100%	100%
In this office, we discuss ways to prevent errors from happening again. (Item D11)	81%	17.81%	0%	57%	70%	83%	100%	100%	100%
Staff are willing to report mistakes they observe in this office. (Item D12)	78%	17.73%	0%	54%	67%	80%	92%	100%	100%
						% Rarely/Never			
Staff feel like their mistakes are held against them. (Item D7*)	64%	25.77%	0%	27%	50%	67%	83%	100%	100%
6. Staff Training						% Agree/Strongly Agree			
This office trains staff when new processes are put into place. (Item C4)	73%	20.44%	0%	46%	60%	75%	89%	100%	100%
This office makes sure staff get the on-the-job training they need. (Item C7)	73%	20.63%	0%	44%	60%	75%	88%	100%	100%
						% Disagree/Strongly Disagree			
Staff in this office are asked to do tasks they haven't been trained to do. (Item C10*)	65%	23.01%	0%	33%	50%	67%	82%	94%	100%

Note: The item's survey location is shown after the item text. An * denotes a negatively worded item, where the % Disagree/Strongly Disagree or % Rarely/Never indicates a positive response.

Survey Items By SOPS Composite Measure	Average % Positive	s.d.	Survey Item % Positive Response							
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
7. Communication Openness						% Most of the Time/Always			
Providers in this office are open to staff ideas about how to improve office processes. (Item D1)	74%	20.81%	0%	44%	62%	75%	90%	100%	100%
Staff are encouraged to express alternative viewpoints in this office. (Item D2)	73%	20.88%	0%	44%	60%	75%	89%	100%	100%
						% Rarely/Never			
Staff are afraid to ask questions when something does not seem right. (Item D4*)	73%	24.12%	0%	42%	60%	77%	90%	100%	100%
It is difficult to voice disagreement in this office. (Item D10*)	59%	25.17%	0%	25%	42%	60%	76%	95%	100%
8. Office Processes and Standardization						% Agree/Strongly Agree			
We have good procedures for checking that work in this office was done correctly. (Item C9)	68%	21.89%	0%	40%	53%	69%	85%	100%	100%
Staff in this office follow standardized processes to get tasks done. (Item C15)	81%	17.04%	0%	60%	70%	83%	100%	100%	100%
						% Disagree/Strongly Disagree			
This office is more disorganized than it should be. (Item C8*)	62%	26.17%	0%	25%	43%	66%	82%	100%	100%
We have problems with workflow in this office. (Item C12*)	50%	25.88%	0%	18%	30%	50%	67%	86%	100%

Note: The item's survey location is shown after the item text. An * denotes a negatively worded item, where the % Disagree/Strongly Disagree or % Rarely/Never indicates a positive response.

Survey Items By SOPS Composite Measure	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						% Agree/Strongly Agree			
They place a high priority on improving patient care processes. (Item E3)	75%	22.51%	0%	50%	64%	79%	93%	100%	100%
						% Disagree/Strongly Disagree			
They aren't investing enough resources to improve the quality of care in this office. (Item E1*)	44%	25.03%	0%	12%	25%	43%	62%	75%	100%
They overlook patient care mistakes that happen over and over. (Item E2*)	76%	23.42%	0%	50%	67%	80%	100%	100%	100%
They make decisions too often based on what is best for the office rather than what is best for patients. (Item E4*)	55%	24.97%	0%	23%	37%	56%	73%	88%	100%
10. Work Pressure and Pace						% Agree/Strongly Agree			
We have enough staff to handle our patient load. (Item C11)	40%	27.87%	0%	0%	17%	38%	60%	80%	100%
						% Disagree/Strongly Disagree			
In this office, we often feel rushed when taking care of patients. (Item C3*)	37%	23.69%	0%	7%	20%	33%	50%	70%	100%
We have too many patients for the number of providers in this office. (Item C6*)	42%	26.84%	0%	8%	20%	38%	63%	80%	100%
This office has too many patients to be able to handle everything effectively. (Item C14*)	52%	26.81%	0%	17%	33%	50%	71%	90%	100%

Note: The item's survey location is shown after the item text. An * denotes a negatively worded item, where the % Disagree/Strongly Disagree or % Rarely/Never indicates a positive response.

Table 6-3. Item Results on Patient Safety and Quality Issues – 2022 SOPS Medical Office Database

Patient Safety and Quality Issues	Average % Positive	s.d.	Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
Access to Care									
A patient was unable to get an appointment within 48 hours for an acute/serious problem. (Item A1)	72%	25.90%	0%	33%	56%	75%	100%	100%	100%
Patient Identification									
The wrong chart/medical record was used for a patient. (Item A2)	98%	5.68%	50%	92%	100%	100%	100%	100%	100%
Charts/Medical Records									
A patient's chart/medical record was not available when needed. (Item A3)	93%	11.12%	25%	79%	89%	100%	100%	100%	100%
Medical information was filed, scanned, or entered into the wrong patient's chart/medical record. (Item A4)	97%	7.78%	33%	89%	100%	100%	100%	100%	100%
Medical Equipment									
Medical equipment was not working properly or was in need of repair or replacement. (Item A5)	88%	15.18%	0%	67%	80%	93%	100%	100%	100%
Medication									
A pharmacy contacted our office to clarify or correct a prescription. (Item A6)	61%	26.02%	0%	25%	41%	60%	80%	100%	100%
A patient's medication list was not updated during his or her visit. (Item A7)	77%	21.64%	0%	44%	67%	80%	100%	100%	100%
Diagnostics and Tests									
The results from a lab or imaging test were not available when needed. (Item A8)	78%	21.08%	0%	50%	67%	80%	100%	100%	100%
A critical abnormal result from a lab or imaging test was not followed up within 1 business day. (Item A9)	94%	11.58%	33%	75%	89%	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," or "Several times in the past 12 months."

Table 6-4. Item Results on Information Exchange With Other Settings – 2022 SOPS Medical Office Database

Information Exchange With Other Settings	Average % Positive	s.d.	Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
Over the past 12 months, how often has your medical office had <u>problems exchanging accurate, complete, and timely information</u> with:									
Outside labs/imaging centers? (Item B1)	75%	22.22%	0%	43%	60%	77%	100%	100%	100%
Other medical offices/Outside physicians? (Item B2)	75%	21.38%	0%	45%	60%	77%	92%	100%	100%
Pharmacies? (Item B3)	78%	21.16%	0%	50%	67%	80%	100%	100%	100%
Hospitals? (Item B4)	83%	18.24%	0%	57%	71%	86%	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," or "Several problems in the past 12 months."

Table 6-5. Results on Average Overall Ratings on Quality and Patient Safety – 2022 SOPS Medical Office Database

| Average Overall Ratings on Quality and Patient Safety | Average % Positive | s.d. | Min | Survey Item % Positive Response | | | | | |
				10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
Overall, how would you rate your medical office on each of the following areas of health care quality?									
1. **Patient-Centered** – Is responsive to individual patient preferences, needs, and values. (Item G1a)	69%	22.24%	0%	38%	52%	70%	86%	100%	100%
2. **Effective** – Is based on scientific knowledge. (Item G1b)	71%	20.47%	0%	44%	58%	73%	86%	100%	100%
3. **Timely** – Minimizes waits and potentially harmful delays. (Item G1c)	57%	25.13%	0%	25%	40%	60%	75%	94%	100%
4. **Efficient** – Ensures cost-effective care (avoids waste, overuse, and misuse of services). (Item G1d)	60%	23.87%	0%	29%	43%	61%	78%	94%	100%
5. **Equitable** – Provides the same quality of care to all individuals regardless of gender, race, ethnicity, socioeconomic status, language, etc. (Item G1e)	83%	16.09%	0%	62%	75%	86%	100%	100%	100%
6. **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? (Item G2)	65%	23.24%	0%	33%	50%	67%	83%	100%	100%

Note: The item's survey location is shown after the item text; the percent positive response is based on those who responded "Excellent" or "Very good."

7 Database Results Over Time: 2012 to 2022

In this chapter, we present trends in average percent positive scores for the composite measures in the SOPS Medical Office Databases from 2012 to 2022. Scores are based on the medical offices that submitted to the database for any of these given years. Individual medical offices were not trended; the comparison is only based on the database results for each given year. Medical offices may have submitted only to a single database year or they may have submitted data in multiple years. From 2012 to 2022, the SOPS Medical Office Database accepted data every 2 years. The number of medical offices in the database varies by year, ranging from 934 to 2,437 medical offices.

Overall, from 2012 to 2020, SOPS Medical Office Database results have shown improvement for all composite measures. However, from 2020 to 2022, all composite measure scores decreased during the COVID-19 pandemic. The data presented in the charts are arranged from highest to lowest average percent positive based on the rank order of the composite measures from the 2022 database.

Highlights

From 2012 to 2022, Patient Care Tracking/Followup & Teamwork remained the most positive composite measures.

From 2012 to 2022, Communication About Error showed the highest increase in average percent positive response (6 percent) of all composite measures.

Chart 7-1. **Highest SOPS Medical Office Composite Measure Results Over Time—2012 to 2022 SOPS Medical Office Database**

Chart 7-2. **Middle SOPS Medical Office Composite Measure Results Over Time—2012 to 2022 SOPS Medical Office Database**

Chart 7-3. Lowest SOPS Medical Office Composite Measure Results Over Time—2012 to 2022 SOPS Medical Office Database

Legend:
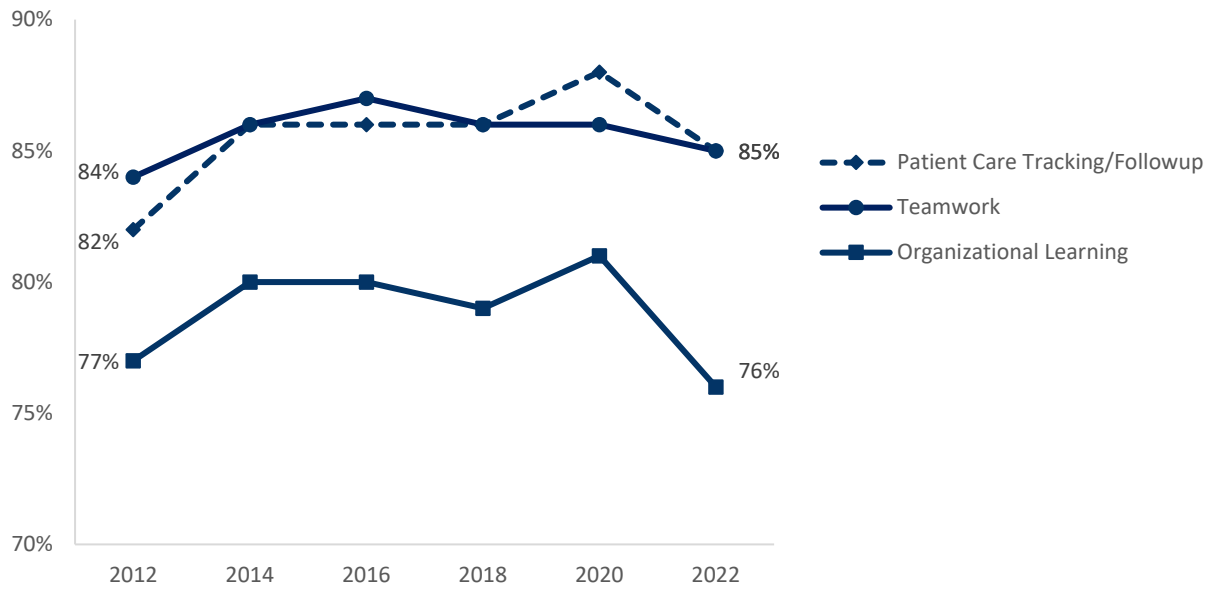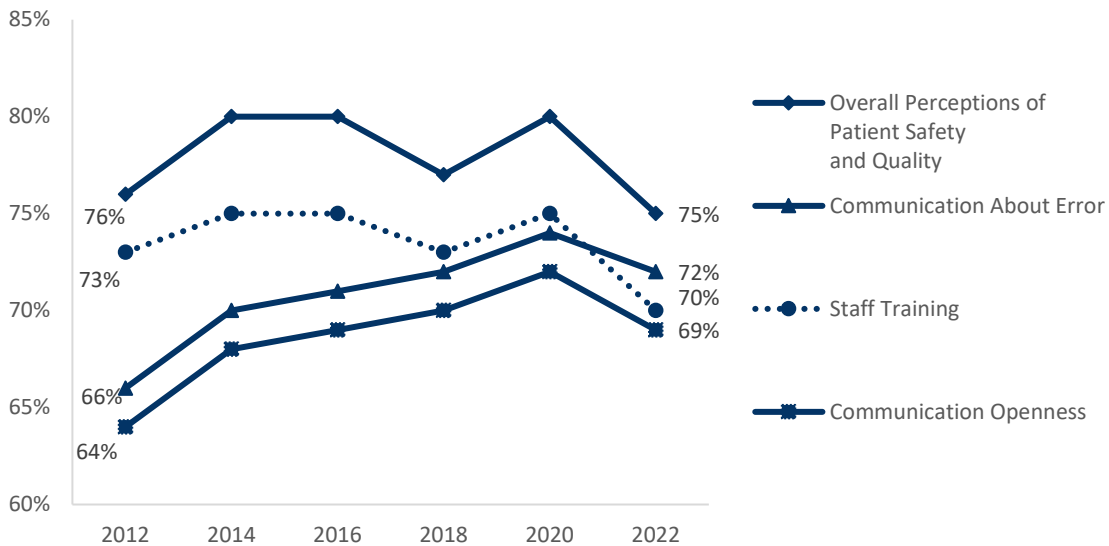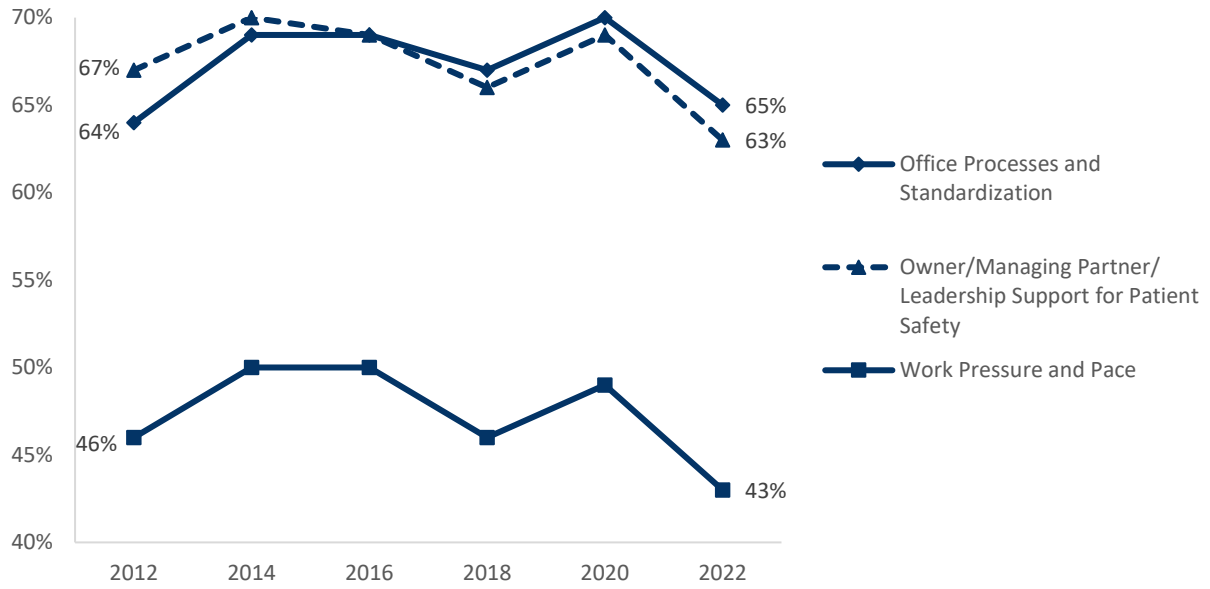- Office Processes and Standardization (solid line, diamond markers)
- Owner/Managing Partner/ Leadership Support for Patient Safety (dashed line, triangle markers)
- Work Pressure and Pace (solid line, square markers)

8   What's Next? Action Planning for Improvement

The AHRQ Surveys on Patient Safety Culture are important sources of information for healthcare organizations striving to improve patient safety and can be used as an effective starting point for action planning to make culture changes. 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 facility 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:

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

Communicate your action plan:

10. 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.

Improvement for Users of the AHRQ Medical Office Survey

The AHRQ *Improving Patient Safety in Medical Offices: A Resource List for Users of the AHRQ Medical Office Survey on Patient Safety Culture* contains references to websites and other practical resources medical offices can use to implement changes to improve patient safety culture and patient safety. These resources are not exhaustive but are provided to give initial guidance to medical offices seeking information about patient safety initiatives.

References

Agency for Healthcare Research and Quality Medical Office Survey on Patient Safety Culture. https://www.ahrq.gov/sops/surveys/medical-office/index.html. Accessed January 28, 2022.

Sorra J, Gray L, Franklin M, Streagle S, Tesler R, Vithidkul A. Action Planning Tool for the AHRQ Surveys on Patient Safety Culture. (Prepared by Westat, Rockville, MD, under Contract No. HHSA290201300003C). Rockville, MD: Agency for Healthcare Research and Quality; January 2016. AHRQ Publication No. 16-0008-EF. https://www.ahrq.gov/sops/resources/planning-tool/index.html. Accessed January 28, 2022.

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

This section provides additional detail regarding data cleaning, calculations of various statistics presented in this report, and data limitations.

Data Cleaning

Each participating medical office submitted respondent-level survey data. Once the data were submitted, we tabulated response frequencies for each medical office to find out-of-range values, missing values, and other data anomalies. When we found data outliers or other inconsistencies, we contacted the medical office and asked them to correct and resubmit their data. In addition, upon uploading their survey data, each participating medical office received a copy of its data frequencies to verify that the dataset received by the online submission system was correct.

The data were also reviewed for response biases (e.g., responding with the same answer for all positively and negatively worded items in the same section of the survey). An example of a positively worded item is D2. *Staff are encouraged to express alternative viewpoints in this office* and an example of a negatively worded item is D4R. *Staff are afraid to ask questions when something does not seem right.*

Sections C, D, E, and F include both positively and negatively worded items. When respondents supplied the same answer for every item in section C, D, E, and F, responses for those particular respondents were removed from the final dataset because respondents should not have answered the same way across these differently worded items. In addition, if respondents marked the same answer for all items within sections C, D, E, or F, those responses were set to missing in that particular section.

As a final step, respondents who had missing answers or supplied a "Does not apply or Don't know" response for all items in sections A, B, C, D, E, F, and G were removed from the final dataset. Medical offices were included in the database only if they had at least three respondents after all data cleaning steps.

Response Rates

As part of the data submission process, we asked medical offices to provide the number of completed, returned surveys and the total number of surveys distributed. Incomplete surveys are those surveys that were removed from data cleaning as outlined above. We then calculated response rates using the formula below:

$$\text{Response Rate} = \frac{\text{Number of complete, returned surveys} - \text{Incompletes}}{\text{Number of eligible providers and staff who received a survey}}$$

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 Agree nor Disagree, Disagree, Strongly disagree) or frequency (Always, Most of the time, Sometimes, Rarely, Never). Three of the 10 SOPS composite measures consisting of 12 items use the frequency response option (Communication About Error, Communication Openness, and Patient Care Tracking/Followup) while the other seven composite measures use the agreement response option. Questions in sections A, B, C, D, E, and F contain a "Does not apply or Don't know" response option that is not included in the calculation of percent positive scores.

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, 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 use a 5-point scale ranging from "Poor" to "Excellent" (Poor, Fair, Good, Very good, Excellent).

Composite Measure Item Percent Positive Response

The survey includes 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"). Calculating the percent positive response from positively worded items is different from calculating the percent positive response from negatively worded items:

- **For positively worded items,** 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 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," depending on the response categories used for the item, 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 percent positive response would be 60%+20% = 80% positive (i.e., 80 percent of respondents *do not* believe mistakes happen more than they should in this office).

Table N1 shows an example of computing a composite measure score for *Staff Training* in a single medical office. This composite measure 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.

Table N1. Example of Computing Item and Composite Measure 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)	Item Percent Positive Response
Item C4 - positively worded "This office trains staff when new processes are put into place."	110	NA*	240	110/240= **45.8%**
Item C7 - positively worded "This office makes sure staff get the on-the-job training they need."	142	NA*	250	140/250= **56.8%**
Item C10 - negatively worded "Staff in this office are asked to do tasks they haven't been trained to do."	NA*	125	260	125/260= **48.1%**
	Composite Measures % Positive Score = (45.8% + 56.8% + 48.1%) / 3 = **50.2%**			

*NA = Not applicable.

This example includes three items, with percent positive response scores of 45.8 percent, 56.8 percent, and 48.1 percent. Averaging the percent positive scores of these three items results in a composite measure percent positive score of 50.2 percent for the *Staff Training* composite measure.

Single Item Percent Positive Response

Percent positive scores for the Patient Safety and Quality Issues items and the Information Exchange With Other Settings items were calculated differently. 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."

Percent positive scores for the six Overall Ratings on Quality and Patient Safety items were also calculated differently based on the two most positive responses of "Excellent" or "Very good."

Composite Measure Percent Positive Response

The 10 SOPS Medical Office Survey composite measures are each composed of three or four survey items. We calculated composite measure scores for each medical office by averaging the unrounded percent positive response on the items within a composite measure. For example, for a three-item composite measure, if the item percent positive responses were 45.8 percent, 56.8 percent, and 48.1 percent, the medical office's composite measure percent positive response would be the average of these three percentages, or 50.2 percent positive, and displayed as a rounded percentage of 50 percent.

If a medical office had item data for at least 50 percent of the items within a composite measure, the site would still receive a composite measure score. For example, for a three-item composite measure score, the number of item scores needed to calculate the composite measure is two items and for a four-item composite measure score, the number of item scores needed to calculate the composite measure is two items.

Database Item and Composite Measure Percent Positive Scores

We calculated the database average percent positive scores for each of the 10 SOPS composite measures and survey items by averaging the unrounded medical office-level percent positive scores and composite measure scores of all medical offices in the database. Because 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.

Standard Deviation

The standard deviation (s.d.) is a measure of the spread or variability of medical office scores around the average. The standard deviations presented in Chapter 6 show the extent to which medical office 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 were 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 percent and 80 percent positive.

Minimum and Maximum Scores

The minimum (lowest) and maximum (highest) percent positive scores are presented for each composite measure and item. These scores provide information about the range of percent positive scores obtained by database medical offices and are actual scores from the lowest and highest scoring medical offices.

When comparing your data 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.

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 for Composite Measure "A" are sorted from low to high.

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

Medical Office	Composite Measure "A" % Positive Score	
1	33%	
2	48%	←10th percentile score = 48%
3	52%	
4	60%	
5	63%	
6	64%	
7	66%	←50th percentile score = 65%
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 (n) by .10 (p) for the 10th percentile:
   (n x p = 12 x .10 = 1.2).
2. The product of n x p = 1.2, where "j" = 1 (the integer) and "g" = 2 (the decimal). Because "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:

   1. "j" equals 1.
   2. 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 x p = 12 x .50 = 6.0).
2. The product of n x p = 6.0, where "j" = 6 and "g" = 0. Because "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:

   1. "j" equals 6.
   2. 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 measure and item. See examples below in Table N4.

Table N4. Sample Percentile Statistics

Survey Item	Average % Positive	s.d	Survey Item % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
Item 1	36%	12.26	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.

Statistically "Significant" Differences Between Scores

You might be interested in determining the statistical significance of differences between your scores and the database scores, or between database scores in various categories (e.g., numbers of providers and staff, staff position). 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.

Data Limitations

The survey results presented in this report represent the largest known compilation of publicly available patient safety culture data for medical offices 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, the database only includes those medical offices that have administered the SOPS Medical Office survey and were willing to submit their data to the database. As such, only a small percentage of all medical offices in the United States (less than 1 percent) are presented (see Table N5).

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 participating in the database is to some degree consistent with the distribution of medical offices in the United States based on the 2019 U.S. Census Bureau Economic Surveys, Office of Physicians estimates. We calculated the 2019 U.S. Census Bureau Economic Surveys, Office of Physicians by regions by looking up the number of medical offices represented in each State (see Table N5).[i]

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[i] U.S. Census Bureau, 2019 County Business Patterns, Economic Surveys. NAICS code 62111: Offices of physicians. https://data.census.gov/cedsci/profile?n=62111&g=0100000US. Accessed January 28, 2022.

Table N5. Distribution of AHRQ 2022 SOPS Medical Office Database Compared With U.S Census Economic Surveys, Offices of Physicians (2019) Data by Region

Geographic Region	AHRQ SOPS Medical Office Survey Database Medical Offices (2022)		U.S. Census Economic Surveys, Offices of Physicians (2019)	
	Number	Percent	Number	Percent
New England	69	6%	8,627	4%
Mid-Atlantic	22	2%	31,738	14%
South Atlantic	397	36%	47,890	21%
East North Central	203	18%	27,984	13%
East South Central	122	11%	11,809	5%
West North Central	168	15%	9,108	4%
West South Central	18	2%	30,421	14%
Mountain	20	2%	16,015	7%
Pacific	81	7%	39,288	18%
Total	1,100	100%	222,880	100%

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

Second, medical offices that administered the survey were not required to undergo any training and administered the survey in different ways. Most medical offices administered web-based surveys, some used paper-only surveys, and others used a combination of paper and web-based surveys. These different survey administration modes could have led to differences in survey responses; further research is needed to determine whether, and how, different administration modes affect results. Survey administration statistics for database medical offices, such as survey administration modes and response rates, are provided in Chapter 2.

Finally, the data medical offices submitted have been cleaned for out-of-range values (e.g., invalid response values due to data entry errors), straight-lining (where responses to all survey items in sections C, D, E, and F were the same), and blank records (where responses to all survey items were missing or "Does not apply or Don't know," except for background items). 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 Characteristics 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 composite measures 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 Specialty vs. Multispecialty
- Specific Specialties
- Primary Care Specialties
- Ownership
- Geographic Region

Appendix B: Results by Respondent Characteristics

- Staff Position
- Tenure in Medical Office

The breakout tables are included as appendixes due to the large number of them. The appendixes are available online at https://www.ahrq.gov/sops/databases/medical-office/index.html.

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

Highlights From Appendix A

Number of Providers (Table A-1 and Table A-6)

- Database medical offices with *2 providers* had the highest percent positive Composite Measure Average (79 percent); database medical offices with *20 or more providers* had the lowest (62 percent).

- Database medical offices with *2 providers* had the highest average percentage of respondents who gave their medical office an Overall Rating on Patient Safety of "Excellent" or "Very good" (76 percent); database medical offices with *20 or more providers* had the lowest (51 percent).

Single Specialty vs. Multispecialty (Table A-7 and Table A-12)

- *Single specialty* database medical offices had the highest percent positive Composite Measure Average (72 percent); *multispecialty* database medical offices had the lowest (64 percent).
- *Single specialty* 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" (67 percent); *multispecialty* database medical offices had the lowest (56 percent).

Specific Specialties (Table A-13 and Table A-18)

- Database medical offices that specialize in *surgery* had the highest percent positive Composite Measure Average (77 percent); database medical offices that specialize in *endocrinology/metabolism* had the lowest (65 percent).
- Database medical offices that specialize in *surgery* had the highest average percentage of respondents who gave their medical office an Overall Rating on Patient Safety of "Excellent" or "Very good" (72 percent); database medical offices that specialize in *endocrinology/ metabolism* had the lowest (56 percent).

Primary Care Specialties (Table A-24)

- Database medical offices that specialize in *pediatrics* 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); database medical offices that specialize in *Obstetrics/ Gynecology (OB/GYN)* had the lowest (65 percent).

Ownership (Table A-25 and Table A-30)

- Database medical offices owned by a *hospital or health system* had the highest percent positive Composite Measure Average (72 percent); database medical offices owned by a *university or academic medical center* had the lowest (59 percent).
- Database medical offices owned by a *hospital or health system* had the highest average percentage of respondents who gave their medical office an Overall Rating on Patient Safety of "Excellent" or "Very good" (67 percent); database medical offices owned by a *university or academic medical center* had the lowest (44 percent).

Geographic Region (Table A-31 and Table A-36)

- Database medical offices in the *South Atlantic* had the highest percent positive Composite Measure Average (75 percent); database medical offices in the *New England* and *Mountain* regions had the lowest (61 percent).
- Database medical offices in the *South Atlantic* and *West South Central* regions had the highest average percentage of respondents who gave their medical office an Overall Rating on Patient Safety of "Excellent" or "Very good" (70 percent); database medical offices in the *New England* and *Mountain* regions had the lowest (56 percent).

Highlights From Appendix B

Staff Position (Table B-1 and Table B-6)

- *Management* had the highest percent positive Composite Measure Average (81 percent); *Other Clinical Staff or Clinical Support Staff* had the lowest (69 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" (79 percent); *Physician Assistant, Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, Advanced Practice Nurse, etc.* had the lowest (62 percent).

Tenure in Medical Office (Table B-7 and Table B-12)

- Respondents who have worked *less than 1 year* in their medical office had the highest percent positive Composite Measure Average (76 percent); respondents who have worked *3 years to less than 6 years* had the lowest (68 percent).
- Respondents who have worked *less than 1 year* in their 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" (69 percent); respondents who have worked *6 years to less than 11 years* had the lowest (62 percent).