Surveys on Patient Safety Culture™ (SOPS®)
MEDICAL OFFICE SURVEY: 2020 USER DATABASE REPORT

PATIENT SAFETY

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Surveys on Patient Safety Culture™ (SOPS®) Medical Office Survey: 2020 User Database Report

Part I

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Overview

Surveys on Patient Safety Culture™

Findings from the 2020 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 2020 SOPS Medical Office Database includes data from:

1,475
Participating medical offices

18,396
Respondents

≫ The survey assesses **10** areas, or composite measures, of patient safety culture.

- Communication About Error
- Communication Openness
- Office Processes and Standardization
- Organizational Learning
- Overall Perceptions of Patient Safety and Quality
- Owner/Managing Partner/ Leadership Support for Patient Safety
- Patient Care Tracking/ Followup
- Staff Training
- Teamwork
- Work Pressure and Pace

Highest Scoring Composite Measure

Patient Care Tracking/ Followup

88% of respondents reported their 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.

Lowest Scoring Composite Measure

Work Pressure and Pace

49% of respondents "strongly agreed" or "agreed" that there are enough staff and providers to handle the patient load, and the office work pace is not hectic.

OTHER FINDINGS

Overall Ratings on Quality

Respondents were asked to rate their medical office on five areas of healthcare quality (patient centered, effective, timely, efficient, and equitable).

Highest Rated

Equitable

84%

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

56%

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

29% Excellent

40% Very good

24% Good

6% Fair

1% Poor
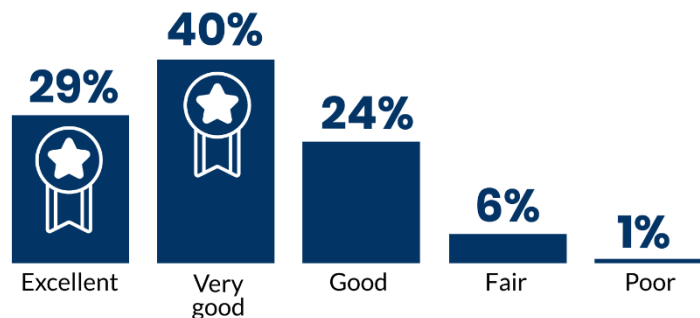
What's Next? Action planning for improving patient safety culture

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 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 SOPS Medical Office Survey Database.

This report presents statistics (averages, standard deviations, minimum and maximum scores, and percentiles) on the patient safety culture composite measures 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).

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 (see Figure 1).

Figure 1.   Definition of Patient Safety Culture
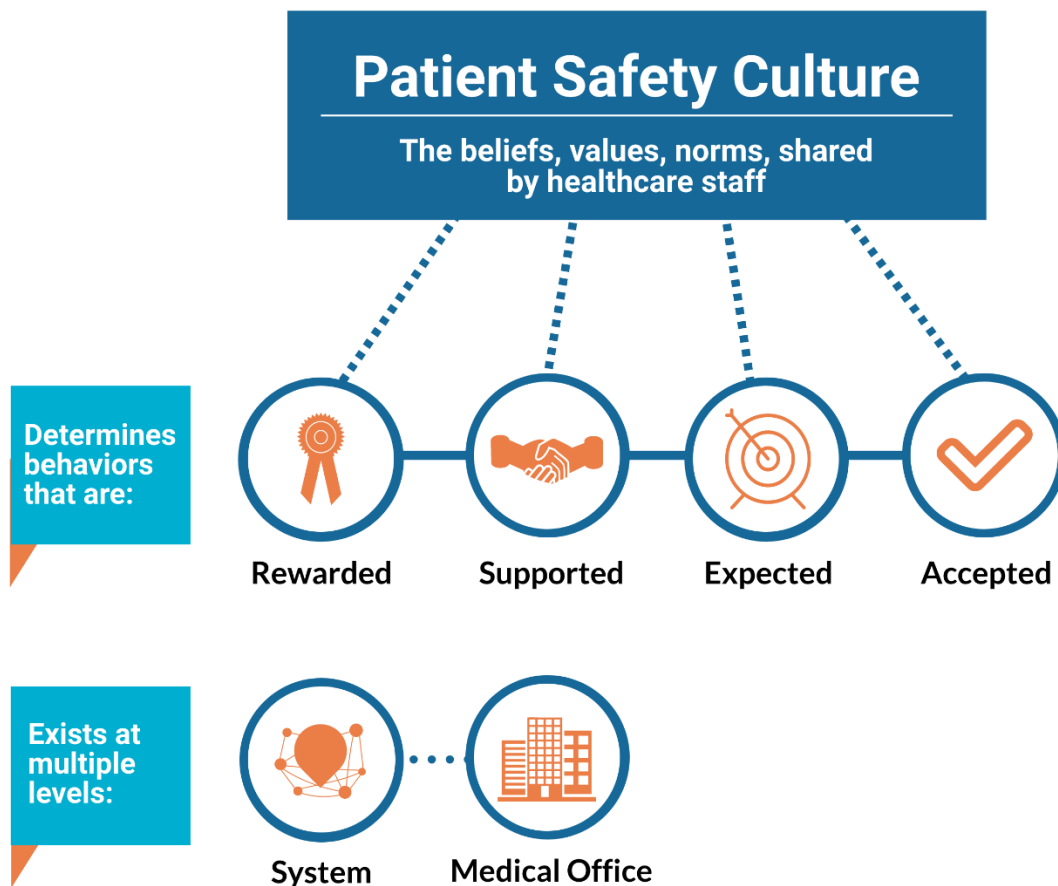
Survey Content

AHRQ funded the development of the SOPS Medical Office Survey. The survey includes 38 items that make up 10 composite measures of patient safety culture. Table 1-1 defines each of the 10 SOPS Medical Office Survey composite measures.

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.

In addition to these composite measure items, the survey 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. The survey also includes items that ask respondents 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 2020 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

Table 2-1. Overall Response Statistics - 2020 SOPS Medical Office Database

Overall Response Information	Statistic
Number of respondents	18,396
Number of surveys administered	30,308
Overall response rate	61%
Average Response Information	**Statistic**
Average number of respondents per medical office (range: 3 to 142)	12
Average number of surveys administered per medical office (range: 5 to 256)	21
Average medical office response rate (range: 5% to 100%)	66%

Table 2-2. Survey Administration Mode Statistics - 2020 SOPS Medical Office Database

Survey Administration Mode	Medical Offices		Respondents		Average Response Rate
	Number	Percent	Number	Percent	Percent
Paper only	37	3%	531	3%	73%
Web only / Both paper and web	1,438	97%	17,865	97%	66%
Total	1,475	100%	18,396	100%	

3 Medical Office Characteristics

This chapter presents information about the characteristics of medical offices included in the 2020 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

47%

of participating medical offices have
4-9 providers per week

79%

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

Table 3-1. Distribution of 2020 SOPS Medical Office Database by Medical Office Characteristics

Medical Office Characteristics	Medical Offices (n=1,475)		Respondents (n=18,396)	
Number of Providers	**Number**	**Percent**	**Number**	**Percent**
1	98	7%	739	4%
2	193	13%	1,434	8%
3	224	15%	1,841	10%
4-9	689	47%	8,575	47%
10-13	128	9%	2,756	15%
14-19	75	5%	1,388	8%
20 or more	68	5%	1,663	9%
Ownership	**Number**	**Percent**	**Number**	**Percent**
Hospital or health system	1,171	79%	14,481	79%
University or academic medical center	120	8%	1,622	9%
Providers and/or physicians	169	11%	2,123	12%
Community health center or Federal, State, or local government	15	1%	170	1%
Single Specialty vs. Multispecialty	**Number**	**Percent**	**Number**	**Percent**
Single specialty	1,264	86%	15,780	86%
Multispecialty	211	14%	2,616	14%
Region	**Number**	**Percent**	**Number**	**Percent**
New England	79	5%	1,028	6%
Mid-Atlantic	18	1%	165	1%
South Atlantic	449	30%	5,684	31%
East North Central	285	19%	3,483	19%
East South Central	126	9%	1,464	8%
West North Central	14	1%	145	1%
West South Central	287	19%	3,048	17%
Mountain	173	12%	2,693	15%
Pacific	44	3%	686	4%

Note: Percentages might not add to 100 percent 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 2020 SOPS Medical Office Database by Specific Specialties of Single-Specialty Medical Offices

Specialty	Number of Medical Offices	Percent
Allergy/Immunology	2	<1%
Anesthesiology	1	<1%
Cardiology	74	6%
Child and Adolescent Psychiatry	3	<1%
Dermatology	8	1%
Diagnostic Radiology	4	<1%
Emergency Medicine	11	1%
Endocrinology/Metabolism	21	2%
Family Practice/Family Medicine	291	23%
Gastroenterology	23	2%
General Practice	52	4%
General Preventive Medicine	1	<1%
General Surgery	13	1%
Geriatrics	3	<1%
Hematology/Oncology	54	4%
Internal Medicine	148	12%
Medical Genetics	2	<1%
Nephrology	8	1%
Neurology	31	2%
OB/GYN or GYN	92	7%
Ophthalmology	14	1%
Orthopedics	45	4%
Other specialty	80	6%
Otolaryngology	13	1%
Pediatrics	99	8%
Physical Medicine and Rehabilitation	28	2%
Psychiatry	15	1%
Pulmonary Medicine	22	2%
Radiology	4	<1%
Rheumatology	10	1%
Surgery (All)	68	5%
Urology	20	2%
Vascular Medicine	4	<1%
Total	**1,264**	**100%**

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

4 Respondent Characteristics

This chapter describes the characteristics of the 18,396 respondents in the 2020 SOPS Medical Office Database (Table 4-1).

Highlights

32%

of respondents were
other clinical staff or clinical support staff, which was
the most prevalent medical office staff position

27%

of respondents have worked in their
medical office for **1 year to less than 3 years,**
which was the most prevalent staff tenure

Table 4-1. Distribution of 2020 SOPS Medical Office Database by Respondent Characteristics

Respondent Characteristics	Respondents	
Staff Position	**Number**	**Percent**
Other clinical staff or clinical support staff	5,699	32%
Administrative or clerical staff	4,273	24%
Registered nurse (RN), licensed vocational nurse (LVN), licensed practical nurse (LPN)	2,645	15%
Physician (M.D. or D.O.)	1,965	11%
Management	1,362	8%
Physician assistant, nurse practitioner, clinical nurse specialist, nurse midwife, advanced practice nurse, etc.	1,184	7%
Other position	585	3%
Total	17,713	100%
Missing	683	
Overall total	18,396	
Tenure in Medical Office	**Number**	**Percent**
Less than 2 months	450	3%
2 months to less than 1 year	2,653	17%
1 year to less than 3 years	4,290	27%
3 years to less than 6 years	3,568	22%
6 years to less than 11 years	2,359	15%
11 years or more	2,632	16%
Total	15,952	100%
Missing	2,444	
Overall	18,396	
Hours Worked per Week in Medical Office	**Number**	**Percent**
1 to 4 hours	104	1%
5 to 16 hours	420	3%
17 to 24 hours	650	4%
25 to 32 hours	993	6%
33 to 40 hours	10,223	64%
41 hours or more	3,561	22%
Total	15,951	100%
Missing	2,445	
Overall	18,396	

Note: Percentages might not add to 100 percent due to rounding.

5 Overall Results

This chapter presents overall findings from the 2019 data submission cycle for the 2020 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 Measure
Patient Care Tracking/Followup
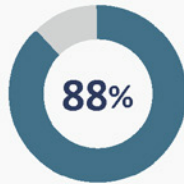
88%

of respondents reported their 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

LOWEST Scoring Composite Measure
Work Pressure and Pace

49%
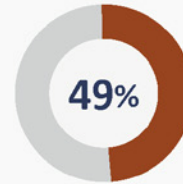
of respondents "strongly agreed" or "agreed" there are enough staff and providers to handle the patient load, and the office work pace is not hectic

Overall Rating on Patient Safety

68%
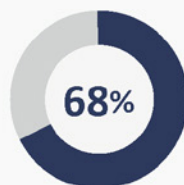
of respondents gave their medical office an overall patient safety rating of "excellent" or "very good"

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. 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, and;

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 – 2020 SOPS Medical Office Database

Patient Safety Culture Composite Measures	Average % Positive Response
Patient Care Tracking/Followup	88
Teamwork	86
Organizational Learning	81
Overall Perceptions of Patient Safety and Quality	80
Staff Training	75
Communication About Error	74
Communication Openness	72
Office Processes and Standardization	70
Owner/Managing Partner/ Leadership Support for Patient Safety	69
Work Pressure and Pace	49
Composite Measure Average	74

Chart 5-2. Item Results
Average Percent Positive Response – 2020 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. (D3)

90

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

82

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

87

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

91

2. Teamwork

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

85

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

89

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

85

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

85

3. Organizational Learning

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

84

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

82

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

76

Note: The item's survey location is shown in parentheses. An "R" indicates a negatively worded item, where the percent positive response is based on "Strongly disagree" or "Disagree," or "Never" or "Rarely" responses, as appropriate.

4. Overall Perceptions of Patient Safety and Quality

Average % Positive Response

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

| | 87 |

Mistakes happen more than they should in this office. (F3R)

| | 81 |

It is just by chance that we don't make more mistakes that affect our patients. (F4R)

| | 79 |

In this office, getting more work done is more important than quality of care. (F6R)

| | 74 |

5. Staff Training

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

| | 77 |

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

| | 77 |

Staff in this office are asked to do tasks they haven't been trained to do. (C10R)

| | 72 |

6. Communication About Error

Staff feel like their mistakes are held against them. (D7R)

| | 66 |

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

| | 65 |

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

| | 84 |

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

| | 80 |

Note: The item's survey location is shown in parentheses. An "R" indicates a negatively worded item, where the percent positive response is based on "Strongly disagree" or "Disagree," or "Never" or "Rarely" responses, as appropriate.

7. Communication Openness

Average % Positive Response

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

75

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

74

Staff are afraid to ask questions when something does not seem right. (D4R)

76

It is difficult to voice disagreement in this office. (D10R)

61

8. Office Processes and Standardization

This office is more disorganized than it should be. (C8R)

68

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

73

We have problems with workflow in this office. (C12R)

55

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

82

Note: The item's survey location is shown in parentheses. An "R" indicates a negatively worded item, where the percent positive response is based on "Strongly disagree" or "Disagree," or "Never" or "Rarely" responses, as appropriate.

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

Average % Positive Response

They aren't investing enough resources to improve the quality of care in this office. (E1R)

| | 49 |

They overlook patient care mistakes that happen over and over. (E2R)

| | 82 |

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

| | 81 |

They make decisions too often based on what is best for the office rather than what is best for patients. (E4R)

| | 62 |

10. Work Pressure and Pace

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

| | 40 |

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

| | 48 |

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

| | 47 |

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

| | 60 |

Note: The item's survey location is shown in parentheses. An "R" indicates a negatively worded item, where the percent positive response is based on "Strongly disagree" or "Disagree," or "Never" or "Rarely" responses, as appropriate.

Chart 5-3. Item Results
Average Percentage Response on Patient Safety and Quality Issues – 2020 SOPS Medical Office Database (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.
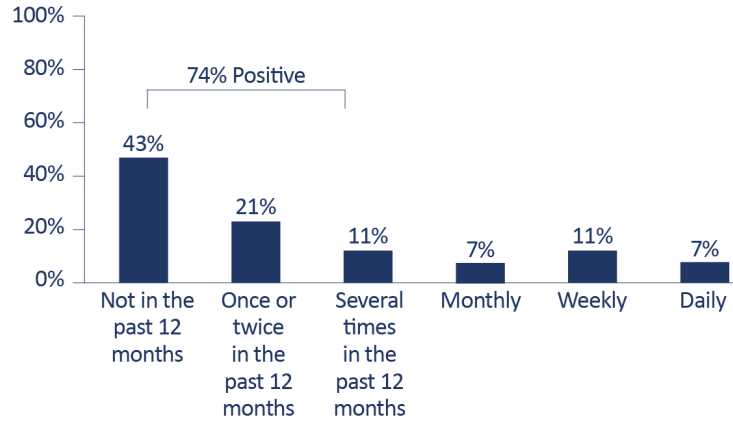
74% Positive

43%	21%	11%	7%	11%	7%
Not in the past 12 months	Once or twice in the past 12 months	Several times in the past 12 months	Monthly	Weekly	Daily

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

98% Positive

67%	26%	4%	1%	1%	0%
Not in the past 12 months	Once or twice in the past 12 months	Several times in the past 12 months	Monthly	Weekly	Daily

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

Chart 5-3. Item Results
Average Percentage Response on Patient Safety and Quality Issues – 2020 SOPS Medical Office Database (Page 2 of 5)

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

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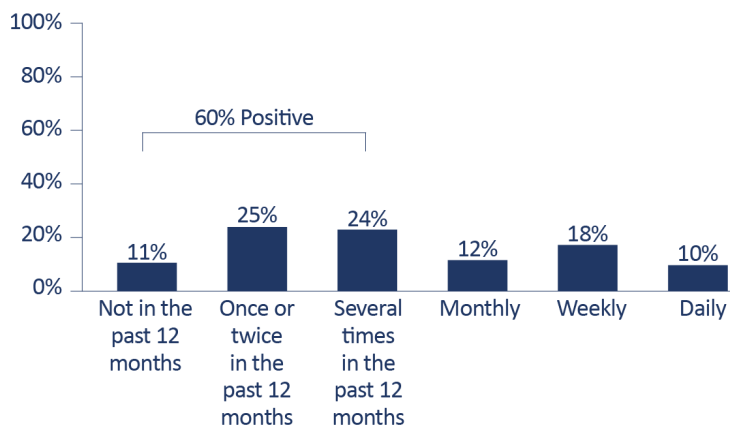
Note: Percentages indicate the database average percent response for each item response category. The percent positive displayed might not equal the sum of the response option percentages due to rounding. All six percentages might not add to 100 percent due to rounding.

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.
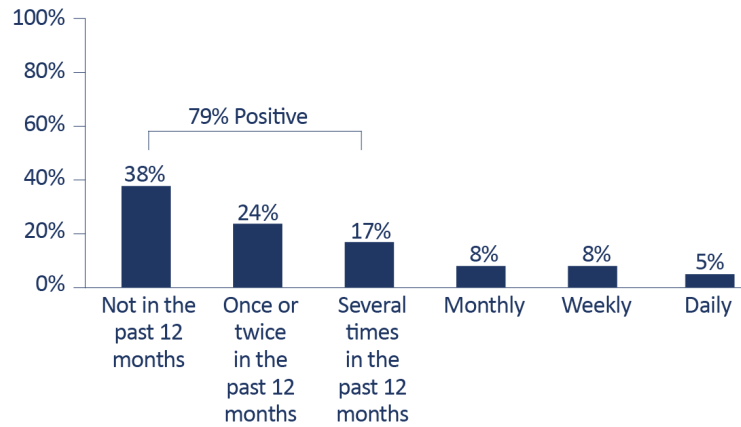
A8. The results from a lab or imaging test were not available when needed.
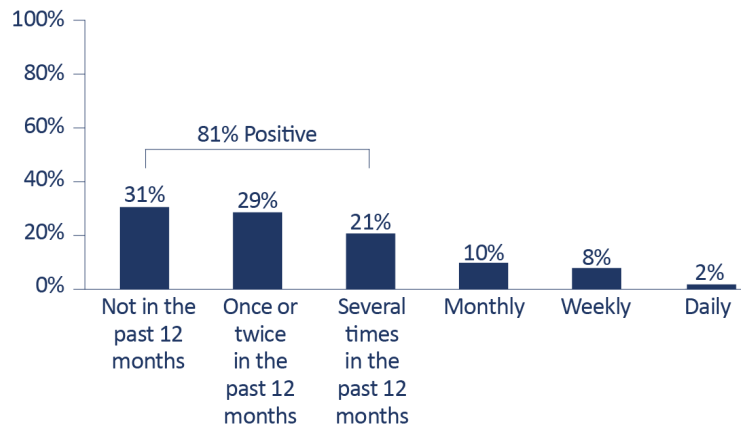
Note: Percentages indicate the database average percent response for each item response category. The percent positive displayed might not equal the sum of the response option percentages due to rounding. All six percentages might not add to 100 percent due to rounding.
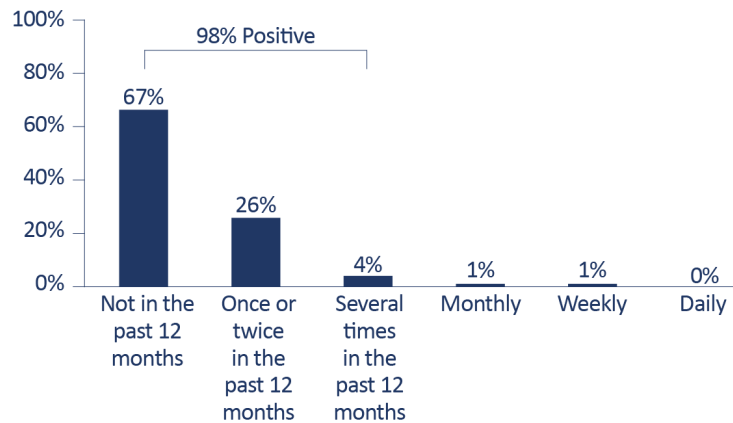
Chart 5-3. Item Results

Average Percentage Response on Patient Safety and Quality Issues – 2020 SOPS Medical Office Database (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: Percentages indicate the database average percent response for each item response category. The percent positive displayed might not equal the sum of the response option percentages due to rounding. All six percentages might not add to 100 percent due to rounding.

Chart 5-4. Item Results

Average Percentage Response on Information Exchange With Other Settings –
2020 SOPS Medical Office Database (Page 1 of 2)

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

B1. Outside labs/imaging centers?

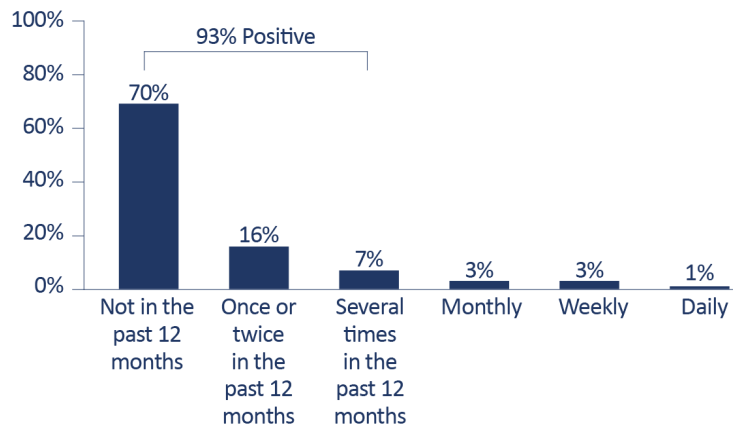B2. Other medical offices/
outside physicians?

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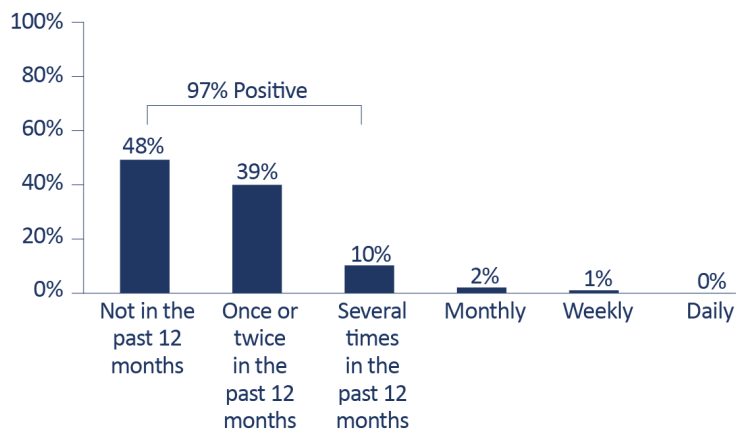
Chart 5-4. Item Results

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

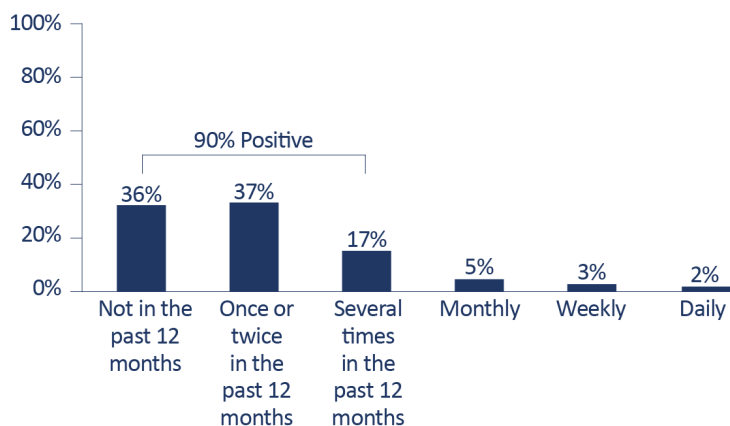B3. Pharmacies?
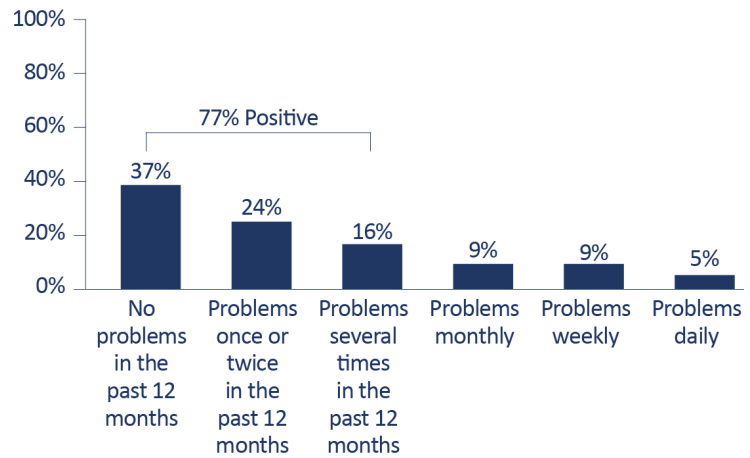
B4. Hospitals?

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

G1a. Patient-centered

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

71% Positive

	Excellent	Very good	Good	Fair	Poor
	34%	37%	24%	4%	1%

G1b. Effective

Is based on scientific knowledge.

71% Positive

	Excellent	Very good	Good	Fair	Poor
	33%	38%	25%	4%	1%

G1c. Timely

Minimizes waits and potentially harmful delays.
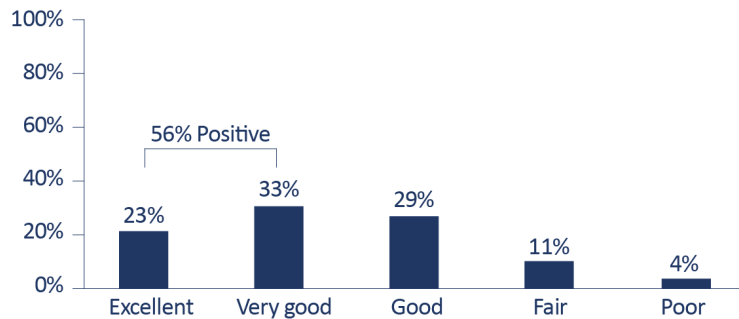
56% Positive

	Excellent	Very good	Good	Fair	Poor
	23%	33%	29%	11%	4%

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

G1d. Efficient

Ensures cost-effective care (avoids waste, overuse, and misuse of services).
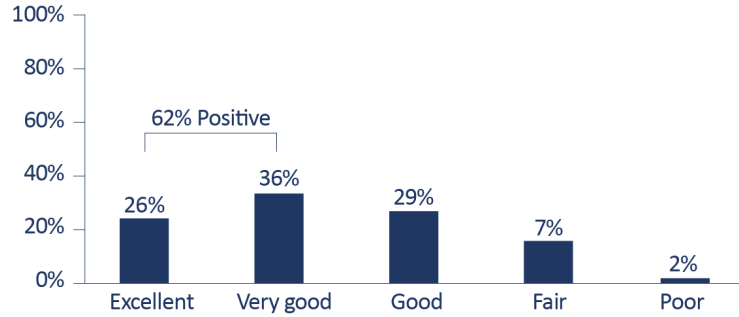
62% Positive

Excellent	Very good	Good	Fair	Poor
26%	36%	29%	7%	2%

G1e. Equitable

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

84% Positive

Excellent	Very good	Good	Fair	Poor
58%	26%	13%	2%	1%

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

Chart 5-6. Item Results

Average Overall Rating on Patient Safety — 2020 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?

68% Positive

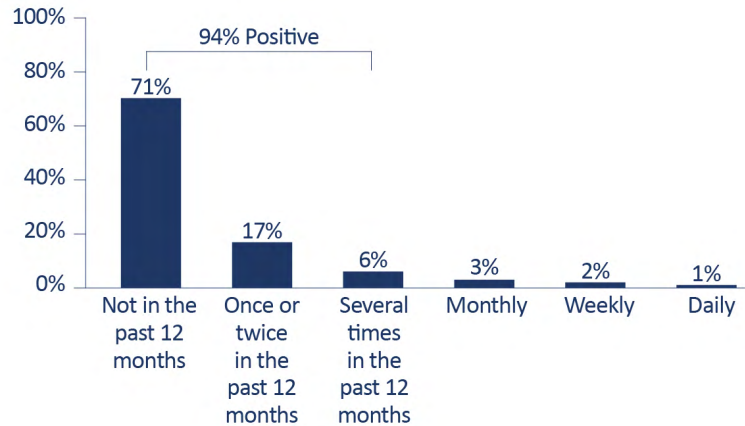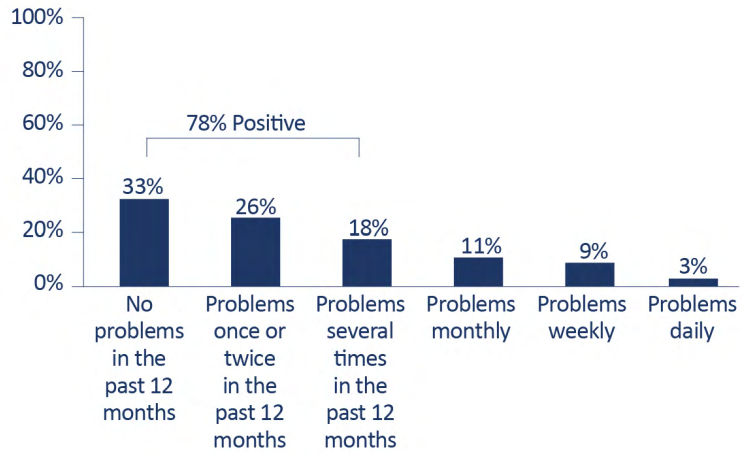|	Excellent	Very good	Good	Fair	Poor
	29%	40%	24%	6%	1%
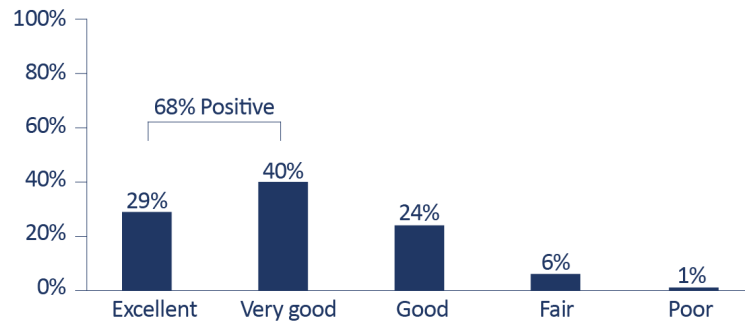
Note: Percentages indicate the database average percent response for each item response category. The percent positive displayed might not equal the sum of the response option percentages due to rounding. All five percentages might not add to 100 percent due to rounding.
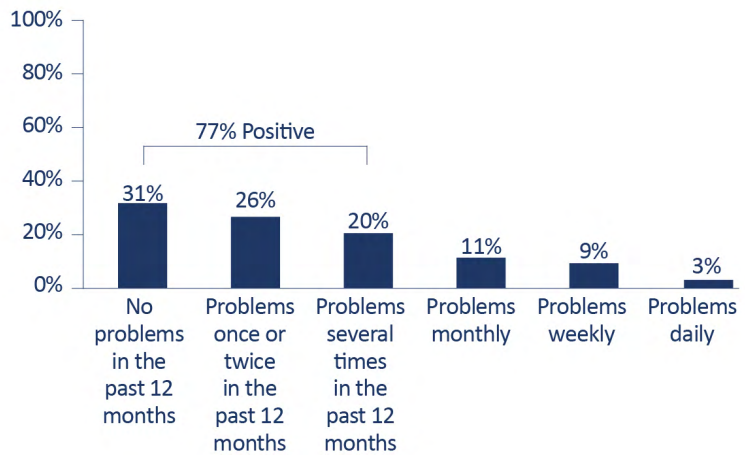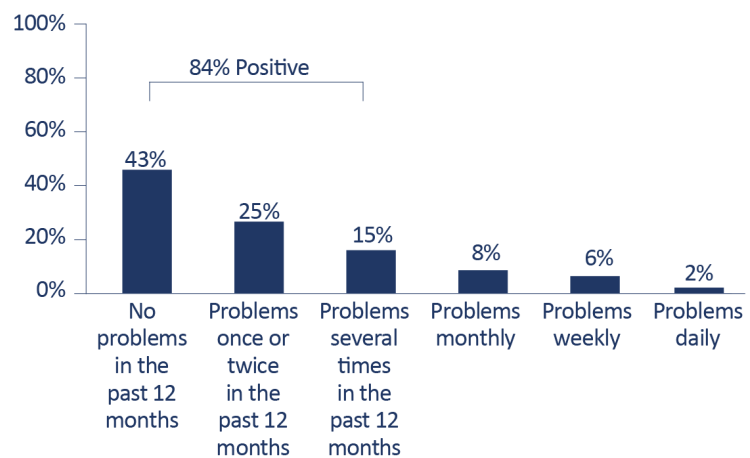
6 Comparing Medical Office Results

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, first 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. 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 – 2020 SOPS Medical Office Database

SOPS Composite Measures	Average		Composite Measure % Positive Response						
	% Positive	s.d.	Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
1. Patient Care Tracking/Followup	88%	11.26%	36%	71%	81%	89%	96%	100%	100%
2. Teamwork	86%	13.07%	17%	68%	80%	89%	96%	100%	100%
3. Organizational Learning	81%	15.77%	17%	58%	71%	84%	93%	100%	100%
4. Overall Perceptions of Patient Safety and Quality	80%	14.96%	8%	60%	72%	83%	92%	96%	100%
5. Staff Training	75%	17.97%	0%	50%	65%	78%	89%	96%	100%
6. Communication About Error	74%	15.51%	25%	53%	63%	75%	86%	93%	100%
7. Communication Openness	72%	16.85%	17%	49%	61%	73%	84%	94%	100%
8. Office Processes and Standardization	70%	18.69%	11%	44%	57%	71%	85%	93%	100%
9. Owner/Managing Partner/Leadership Support for Safety	69%	16.81%	6%	45%	58%	71%	81%	88%	100%
10. Work Pressure and Pace	49%	21.91%	0%	20%	33%	49%	65%	79%	100%

Table 6-2.   Item Results – 2020 SOPS Medical Office Database (Page 1 of 4)

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
1. Patient Care Tracking/Followup									
1. This office reminds patients when they need to schedule an appointment for preventive or routine care. (D3)	90%	13.22%	25%	72%	83%	93%	100%	100%	100%
2. This office documents how well our chronic-care patients follow their treatment plans. (D5)	82%	19.35%	0%	56%	70%	86%	100%	100%	100%
3. Our office follows up when we do not receive a report we are expecting from an outside provider. (D6)	87%	15.08%	22%	67%	78%	90%	100%	100%	100%
4. This office follows up with patients who need monitoring. (D9)	91%	12.45%	20%	75%	84%	100%	100%	100%	100%
2. Teamwork									
1. When someone in this office gets really busy, others help out. (C1)	85%	16.32%	9%	61%	77%	88%	100%	100%	100%
2. In this office, there is a good working relationship between staff and providers. (C2)	89%	14.21%	0%	70%	83%	94%	100%	100%	100%
3. In this office, we treat each other with respect. (C5)	85%	16.49%	11%	61%	75%	89%	100%	100%	100%
4. This office emphasizes teamwork in taking care of patients. (C13)	85%	15.73%	0%	64%	78%	89%	100%	100%	100%

Note: The item's survey location is shown in parentheses. An "R" indicates a negatively worded item, where the percent positive response is based on "Strongly disagree" or "Disagree," or "Never" or "Rarely" responses, as appropriate.

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									
1. When there is a problem in our office, we see if we need to change the way we do things. (F1)	84%	16.13%	0%	63%	75%	86%	100%	100%	100%
2. This office is good at changing office processes to make sure the same problems don't happen again. (F5)	82%	17.91%	0%	56%	71%	86%	100%	100%	100%
3. After this office makes changes to improve the patient care process, we check to see if the changes worked. (F7)	76%	19.63%	0%	50%	67%	80%	92%	100%	100%
4. Overall Perceptions of Patient Safety and Quality									
1. Our office processes are good at preventing mistakes that could affect patients. (F2)	87%	15.63%	14%	67%	78%	90%	100%	100%	100%
2. Mistakes happen more than they should in this office. (F3R)	81%	18.83%	0%	56%	69%	83%	100%	100%	100%
3. It is just by chance that we don't make more mistakes that affect our patients. (F4R)	79%	18.37%	0%	56%	69%	82%	94%	100%	100%
4. In this office, getting more work done is more important than quality of care. (F6R)	74%	20.16%	0%	45%	62%	75%	89%	100%	100%
5. Staff Training									
1. This office trains staff when new processes are put into place. (C4)	77%	19.93%	0%	50%	67%	80%	93%	100%	100%
2. This office makes sure staff get the on-the-job training they need. (C7)	77%	20.04%	0%	50%	65%	80%	92%	100%	100%
3. Staff in this office are asked to do tasks they haven't been trained to do. (C10R)	72%	21.02%	0%	43%	60%	75%	88%	100%	100%

Note: The item's survey location is shown in parentheses. An "R" indicates a negatively worded item, where the percent positive response is based on "Strongly disagree" or "Disagree," or "Never" or "Rarely" responses, as appropriate.

Table 6-2. Item Results – 2020 SOPS Medical Office Database (Page 3 of 4)

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
6. Communication About Error									
1. Staff feel like their mistakes are held against them. (D7R)	66%	23.01%	0%	33%	50%	67%	83%	100%	100%
2. Providers and staff talk openly about office problems. (D8)	65%	21.76%	0%	37%	50%	67%	80%	100%	100%
3. In this office, we discuss ways to prevent errors from happening again. (D11)	84%	16.42%	0%	63%	75%	86%	100%	100%	100%
4. Staff are willing to report mistakes they observe in this office. (D12)	80%	16.94%	0%	57%	70%	82%	100%	100%	100%
7. Communication Openness									
5. Providers in this office are open to staff ideas about how to improve office processes. (D1)	75%	20.84%	0%	45%	63%	78%	91%	100%	100%
6. Staff are encouraged to express alternative viewpoints in this office. (D2)	74%	19.75%	0%	50%	61%	75%	89%	100%	100%
7. Staff are afraid to ask questions when something does not seem right. (D4R)	76%	18.68%	0%	50%	67%	78%	90%	100%	100%
8. It is difficult to voice disagreement in this office. (D10R)	61%	22.93%	0%	31%	45%	62%	78%	95%	100%
8. Office Processes and Standardization									
1. This office is more disorganized than it should be. (C8R)	68%	23.57%	0%	35%	50%	69%	86%	100%	100%
2. We have good procedures for checking that work in this office was done correctly. (C9)	73%	20.80%	0%	43%	60%	75%	89%	100%	100%
3. We have problems with workflow in this office. (C12R)	55%	25.81%	0%	20%	36%	56%	75%	90%	100%
4. Staff in this office follow standardized processes to get tasks done. (C15)	82%	17.26%	0%	60%	74%	86%	100%	100%	100%

Note: The item's survey location is shown in parentheses. An "R" indicates a negatively worded item, where the percent positive response is based on "Strongly disagree" or "Disagree," or "Never" or "Rarely" responses, as appropriate.

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									
1. They aren't investing enough resources to improve the quality of care in this office. (E1R)	49%	24.31%	0%	18%	33%	50%	67%	80%	100%
2. They overlook patient care mistakes that happen over and over. (E2R)	82%	18.62%	0%	57%	71%	86%	100%	100%	100%
3. They place a high priority on improving patient care processes. (E3)	81%	19.28%	0%	56%	70%	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)	62%	22.66%	0%	33%	47%	64%	79%	90%	100%
10. Work Pressure and Pace									
1. In this office, we often feel rushed when taking care of patients. (C3R)	40%	23.79%	0%	11%	23%	38%	56%	75%	100%
2. We have too many patients for the number of providers in this office. (C6R)	48%	27.67%	0%	12%	25%	50%	67%	86%	100%
3. We have enough staff to handle our patient load. (C11)	47%	27.88%	0%	11%	25%	47%	69%	86%	100%
4. This office has too many patients to be able to handle everything effectively. (C14R)	60%	25.71%	0%	25%	41%	62%	80%	100%	100%

Note: The item's survey location is shown in parentheses. An "R" indicates a negatively worded item, where the percent positive response is based on "Strongly disagree" or "Disagree," or "Never" or "Rarely" responses, as appropriate.

Table 6-3. Item Results on Patient Safety and Quality Issues – 2020 SOPS Medical Office Database

A. 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)	74%	23.53%	0%	40%	60%	80%	100%	100%	100%
Patient Identification									
2. The wrong chart/medical record was used for a patient. (A2)	98%	6.00%	33%	91%	100%	100%	100%	100%	100%
Charts/Medical Records									
3. A patient's chart/medical record was not available when needed. (A3)	93%	12.08%	22%	78%	90%	100%	100%	100%	100%
4. Medical information was filed, scanned, or entered into the wrong patient's chart/medical record. (A4)	97%	7.64%	33%	86%	100%	100%	100%	100%	100%
Medical Equipment									
5. Medical equipment was not working properly or was in need of repair or replacement. (A5)	90%	13.74%	0%	70%	83%	100%	100%	100%	100%
Medication									
6. A pharmacy contacted our office to clarify or correct a prescription. (A6)	60%	24.53%	0%	29%	42%	60%	79%	100%	100%
7. A patient's medication list was not updated during his or her visit. (A7)	79%	20.24%	0%	50%	67%	80%	100%	100%	100%
Diagnostics and Tests									
8. The results from a lab or imaging test were not available when needed. (A8)	81%	19.53%	0%	53%	70%	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)	94%	11.44%	20%	80%	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 Results on Information Exchange With Other Settings – 2020 SOPS Medical Office Database

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)	78%	20.78%	0%	50%	67%	80%	100%	100%	100%
2. Other medical offices/Outside physicians? (B2)	77%	20.90%	0%	50%	67%	80%	100%	100%	100%
3. Pharmacies? (B3)	77%	20.80%	0%	50%	65%	80%	100%	100%	100%
4. Hospitals? (B4)	84%	18.41%	0%	60%	75%	87%	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 – 2020 SOPS Medical Office Database

| Average Overall Ratings on Quality and Patient Safety | Average % Positive | s.d. | Survey Item % Positive Response | | | | | | |
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
1. Patient-Centered – Is responsive to individual patient preferences, needs, and values. (G1a)									
Excellent/Very good	71%	20.55%	0%	44%	58%	73%	86%	100%	100%
2. Effective – Is based on scientific knowledge. (G1b)									
Excellent/Very good	71%	19.63%	0%	46%	60%	73%	86%	100%	100%
3. Timely – Minimizes waits and potentially harmful delays. (G1c)									
Excellent/Very good	56%	24.52%	0%	25%	40%	56%	75%	88%	100%
4. Efficient – Ensures cost-effective care (avoids waste, overuse, and misuse of services). (G1d)									
Excellent/Very good	62%	21.73%	0%	33%	50%	63%	78%	92%	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	84%	15.02%	0%	63%	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%	22.28%	0%	38%	54%	70%	86%	100%	100%

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

7   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.

Resource List 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 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.

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

This section provides additional detail regarding how various statistics presented in this report were calculated, as well as data limitations.

Data Cleaning

Each participating medical office submitted individual-level survey data. Once the data were submitted, we tabulated response frequencies for each medical office to find out-of-range values, missing values, or 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, each participating medical office received a copy of its data frequencies upon uploading their survey data, 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 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.*

Both positively and negatively worded items are in sections C, D, E, and F. When respondents supplied the same answer for every item in section C, D, E, or F, the items in those sections were considered "missing" because the sections have negatively worded items. After this initial review, respondents with missing answers for all sections C, D, E, and F were deleted before analysis.

In addition, if respondents marked the same answer for any section C, D, E, or F, those items were set to missing. 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 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 administered. Incomplete surveys are those surveys with missing answers or "Does not apply or Don't know" answers for all

questions in sections A, B, C, D, E, F, and G. 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 7 composite measures consisting of 26 items 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 uses a 5-point scale ranging from "Poor" to "Excellent" (Poor, Fair, Good, Very good, Excellent).

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," 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 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 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."

Composite Measure Percent Positive Response

The 10 SOPS composite measures are each composed of three or four survey items. We calculate composite measure scores for each medical office by averaging the percent positive responses on all the items in a composite measure. For example, for a three-item composite measure, if the item percent positive responses were 50 percent, 55 percent, and 60 percent, the medical office's

composite measure percent positive response would be the average of these three percentages, or 55 percent positive.

Item and Composite Measure Percent Positive Scores Example

We calculated the average percent positive scores for each of the 10 SOPS composite measures and for the 38 survey items by averaging the medical office-level percent positive scores across all medical offices in the database. Since percent positive is calculated as an overall average, scores from each medical office are weighted equally in their contribution to this average score.

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 C10R). Keep in mind that DISAGREEING with a negatively worded item indicates a POSITIVE response.

Table N1. Example of Computing Item and Composite Measures 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 Measures % Positive Score = (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. The average of these item percent positive scores in the Staff Training composite measure is 50 percent. In this example, an average of 50 percent of the respondents responded positively to the survey items in the Staff Training composite measure.

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.

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 tell you the extent to which medical office's 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 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.

For example, to calculate the 10th percentile, one would multiply 1,475 (the total number of medical offices) by .10 (10th percentile). The product of n x p is equal to "j+g" where "j" is the integer and "g" is the number after the decimal. In this case, j = 147 and g = .5, since 1,475 x .10 = 147.5.

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 Measure "A."

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%	←50th percentile score = 65%
7	66%	
8	70%	
9	72%	
10	75%	
11	75%	
12	78%	

10th percentile

1. For the 10th percentile, we would first multiply the number of medical offices by .10: (n x p = 12 x .10 = 1.2).
2. The product of n x 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:

    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. 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:

    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 % Positive Response						
Survey Item	**Average % Positive**	**s.d**	**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.

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 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). These voluntary submitters 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 to some degree consistent with the distribution of medical offices based on the 2012 U.S. Economic Census, Office of Physicians estimates. We calculated the 2012 U.S. Economic Census, 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 2012. Economic census (2012 NAICS code 62111 "Offices of physicians"). http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_62A1&prodType=table. Accessed February 19, 2020.

Table N5. Distribution of AHRQ 2020 SOPS Medical Office Database Compared With U.S. Economic Census, Offices of Physicians (2012) Data by Region

Geographic Region	AHRQ SOPS Medical Office Survey Database Medical Offices (2020)		U.S. Economic Census, Offices of Physicians (2012)	
	Number	Percent	Number	Percent
New England	79	5%	9,119	4%
Mid-Atlantic	18	1%	34,702	16%
South Atlantic	449	30%	46,654	21%
East North Central	285	19%	27,823	13%
East South Central	126	9%	12,083	5%
West North Central	14	1%	9,232	4%
West South Central	287	19%	27,828	13%
Mountain	173	12%	15,412	7%
Pacific	44	3%	38,037	17%
Total	1,475	100%	220,890	100%

Note: Percentages might not add to 100 percent 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

In addition, 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 only one medical office used a combination of these two methods. These different administration modes could have led to differences in survey responses; further research is needed to determine whether and how different administration modes affect 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" except for 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 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 http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/medical-office/mo-reports.html.

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

Number of Providers (Table A-1)

- Database medical offices with *1 provider* had the highest score on the Composite Measure Average (79 percent); database medical offices with *14 to 19 providers* had the lowest (68 percent).

Staff Position (Table B-1)

- *Management* had the highest Composite Measure Average (86 percent); *Administrative/Clerical Staff, Nurses (RN/LVN/LPN),* and *Other Clinical Staff or Clinical Support Staff* had the lowest (73 percent).