



## Surveys on Patient Safety Culture®

# 2024 Results for the AHRQ Surveys on Patient Safety Culture® (SOPS®) Diagnostic Safety Supplemental Item Set for Medical Offices

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# Overview



## Surveys on Patient Safety Culture<sup>®</sup>

### Findings from the 2024 Surveys on Patient Safety Culture<sup>®</sup> (SOPS<sup>®</sup>) Medical Office Diagnostic Safety Supplemental Item Set

The SOPS Medical Office Diagnostic Safety Supplemental Item Set assesses the extent to which the organizational culture in medical offices supports the diagnostic process, accurate diagnoses, and communication around diagnoses. The 2024 SOPS Medical Office Supplemental Item Set includes data from:



102

Participating  
Medical Offices



760

Provider and Staff  
Respondents



59%

Average Medical Office  
Diagnostic Safety  
Response Rate

### Highest Diagnostic Safety Composite Measure: Testing and Referrals



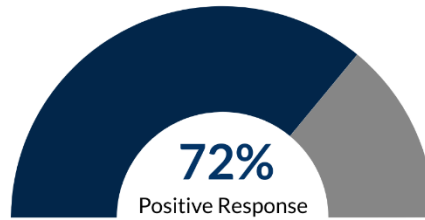
**84%** of respondents agreed that tests, referrals, and other diagnostic procedures are effectively tracked and followed; results are communicated to patients; and staff confirm whether patients went to high-priority appointments.

### Lowest Diagnostic Safety Composite Measure: Time Availability



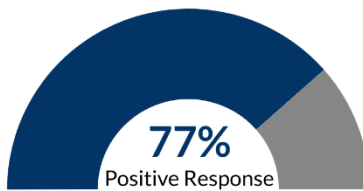
**60%** of respondents agreed that there is enough time available to fully evaluate patient's presenting problems, review relevant patient information, and finish patient notes by the end of the regular workday.

## Overall Diagnostic Safety Composite Measure Average



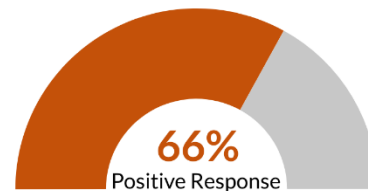
## Highest and Lowest Diagnostic Safety Composite Measure Average by Number of Providers

### Highest



2 Providers

### Lowest



6 or More  
Providers

## Highest and Lowest Diagnostic Safety Items

### Highest



**89%** of respondents agreed that "Providers in this office talk directly with specialists/radiologists/pathologists when something needs clarification."

### Lowest



**45%** of respondents agreed that "Providers in this office finish their patient notes by the end of their regular workday."

## What's Next? Action planning for patient safety improvement

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

# Purpose and Use of This Report

The AHRQ Surveys on Patient Safety Culture® (SOPS®) Diagnostic Safety Supplemental Item Set assesses the extent to which the organizational culture in medical offices supports the diagnostic process, accurate diagnoses, and communication around diagnoses. The supplemental item set was designed to be administered toward the end of the SOPS Medical Office Survey, just before the background questions.

This report provides results from a total of 102 U.S. medical offices and 760 respondents. It includes 18 medical offices that submitted data for the Diagnostic Safety Supplemental Item Set from the 2022 SOPS Medical Office Database and 84 medical offices from the 2024 SOPS Medical Office Database (Table 1).

**Table 1. Number of Participating Medical Offices and Respondents**

Overall Statistic	Retained From the 2022 SOPS Medical Office Database	Submitted to the 2024 SOPS Medical Office Database	Total
Number of medical offices	18	84	102
Number of individual survey respondents	130	630	760

## Comparing Your Results

You can compare your medical office's percent positive scores on the SOPS Diagnostic Safety Supplemental Item Set composite measures and items with the averages shown in Appendixes A and B with medical office and respondent characteristics (number of providers per week, staff position, and tenure in the medical office) similar to your medical office.

When comparing your medical office's results with the results in this document, keep in mind that these results are from a very limited number of medical offices that voluntarily provided their data and will provide only a general indication of how your medical office compares with other medical offices in the United States. The data summarized here were not derived from a statistically representative sample of U.S. medical offices.

## Highlights From the 2024 SOPS Diagnostic Safety Supplemental Item Set

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### Overall Database Results (Chart 1 and Chart 2)

- The composite measure with the highest average percent positive (84 percent) was *Testing and Referrals*.
- The composite measure with the lowest average percent positive (60 percent) was *Time Availability*.
- The item with the highest average percent positive (89 percent) was: “Providers in this office talk directly with specialists/radiologists/pathologists when something needs clarification.”
- The item with the lowest average percent positive (45 percent) was: “Providers in this office finish their patient notes by the end of their regular workday.”

### Number of Providers (Table A-1)

- Medical offices with *2 Providers* had the highest percent positive Diagnostic Safety Composite Measure Average (77 percent); medical offices with *6 or More Providers* had the lowest (66 percent).
- Medical offices with *1 Provider* had the highest percent positive for Time Availability (77 percent); medical offices with *3 to 5 Providers* had the lowest (52 percent).

### Staff Position (Table B-1)

- *Other Clinical Staff or Clinical Support Staff* had the highest percent positive Diagnostic Safety Composite Measure Average (76 percent); *Administrative or Clerical Staff* had the lowest (67 percent).

### Tenure in Medical Office (Table B-3)

- Respondents who have worked *Less Than 1 Year* had the highest percent positive for Time Availability (70 percent); respondents who have worked *1 Year to Less Than 6 Years* had the lowest (57 percent).



# Background and Response Rates

The AHRQ SOPS® Diagnostic Safety Supplemental Item Set includes 12 survey items that make up 3 composite measures. Table 2 defines each composite measure.

**Table 2. SOPS Diagnostic Safety Composite Measures**

Diagnostic Safety Composite Measures	Definition: The extent to which...	Number of Items
<b>Time Availability</b>	Enough time is available for providers to fully evaluate patients' presenting problems, review relevant patient information, and finish patient notes by the end of their regular workday.	3
<b>Testing and Referrals</b>	Tests, referrals, and other diagnostic procedures are effectively tracked and followed; results are communicated to patients; and staff confirm whether patients went to high-priority appointments.	4
<b>Provider and Staff Communication Around Diagnosis</b>	Staff are encouraged to share their concerns about a patient's health condition; providers document differential diagnoses, communicate with other providers about diagnostic issues, and discuss missed diagnoses with other providers.	5

## Response Rate Statistics

The number of survey respondents, number of surveys administered, and response rates for the SOPS Diagnostic Safety Supplemental Item Set are shown in Table 3.

**Table 3. Response Rate Statistics**

Overall Response Rate Information	Statistic
Number of respondents	760
Number of surveys distributed	1,538
Overall response rate	49%
Average Response Rate Information	Statistic
Average number of respondents per medical office (range: 3 to 42)	7
Average number of surveys distributed per medical office (range: 5 to 64)	15
Average medical office response rate (range: 5% to 100%)	59%

**Table 4. Survey Administration Mode Statistics**

Survey Administration Mode	Medical Offices		Respondents		Average Response Rate
	Number	Percent	Number	Percent	Percent
Paper only	6	6%	87	11%	64%
Web only	96	94%	673	89%	48%
<b>Total</b>	102	100%	760	100%	--

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

# Medical Office Characteristics

This section presents the characteristics of participating medical offices, including number of providers, ownership, number of specialties (single vs. multispecialty), presence of an incident/event reporting system, and census region (Table 5). This section also includes the distribution of single-specialty medical offices by specialty (Table 6).

**Table 5. Medical Office Characteristics**

Facility Characteristics	Medical Offices (N=102)	
Number of Providers per Week	Number	Percent
1	17	17%
2	24	24%
3 to 5	43	42%
6 or more	18	18%
Ownership	Number	Percent
Community health center	15	15%
Hospital or health system	86	84%
Providers or physicians	1	1%
Single vs. Multispecialty	Number	Percent
Single specialty	90	88%
Multispecialty	12	12%
Does your medical office have an incident/event reporting system that has a specific coded category to document diagnostic errors such as missed, wrong, or delayed diagnoses?	Number	Percent
Yes	70	69%
No	32	31%
Census Region	Number	Percent
Northeast	15	15%
South	1	1%
Midwest	84	82%
West	2	2%

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

- Northeast: CT, MA, ME, NH, RI, VT, NJ, NY, PA
- South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, PR, SC, TN, TX, VA, VI, WV
- Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI
- West: AK, AS, AZ, CA, CO, GU, HI, ID, MH, MP, MT, NM, OR, NV, UT, WA, WY

**Table 6. Specialties for Single-Specialty Medical Offices**

Single-Specialty Offices Only (n=90)	Number	Percent
Cardiology	2	2%
Dermatology	1	1%
Family Practice/Family Medicine/Primary Care	30	33%
Gastroenterology	1	1%
General Practice	3	3%
General Surgery	4	4%
Hematology/Oncology	2	2%
Internal Medicine	8	9%
Neurology	2	2%
Obstetrics/Gynecology (OB/GYN) or GYN	6	7%
Ophthalmology	2	2%
Orthopedics	4	4%
Pediatrics	3	3%
Physical Medicine/Rehabilitation	1	1%
Psychiatry	4	4%
Radiology	1	1%
Rheumatology	2	2%
Urology	1	1%
Other	13	14%

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

# Respondent Characteristics

This section describes the characteristics of the 760 respondents within the participating medical offices.

**Table 7. Respondent Characteristics**

Respondent Characteristics	Respondents	
	Number	Percent
<b>Staff Position</b>		
Administrative or clerical staff	150	21%
Management	69	10%
Physician (M.D. or D.O.)	51	7%
Physician assistant, nurse practitioner, clinical nurse specialist, nurse midwife, advanced practice nurse, etc.	60	8%
Registered nurse (RN), licensed vocational nurse (LVN), licensed practical nurse (LPN)	165	23%
Other clinical staff or clinical support staff	187	26%
Other position	43	6%
<b>Total</b>	<b>725</b>	<b>100%</b>
Missing	35	--
Overall Total	760	--
<b>Tenure in Medical Office</b>	<b>Number</b>	<b>Percent</b>
Less than 1 year	109	15%
1 year to less than 6 years	323	44%
6 years or more	300	41%
<b>Total</b>	<b>732</b>	<b>100%</b>
Missing	28	--
Overall Total	760	--
<b>Hours Worked per Week in Medical Office</b>	<b>Number</b>	<b>Percent</b>
1 to 32 hours	92	13%
33 to 40 hours	482	66%
41 hours or more	158	22%
<b>Total</b>	<b>732</b>	<b>100%</b>
Missing	28	--
Overall total	760	--

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

# Composite Measure and Item Results

This section provides results for the SOPS Diagnostic Safety Supplemental Item Set composite measures and items. The methods for calculating the percent positive scores at composite measure and item levels are described in Appendix C.

## Composite Measure Results

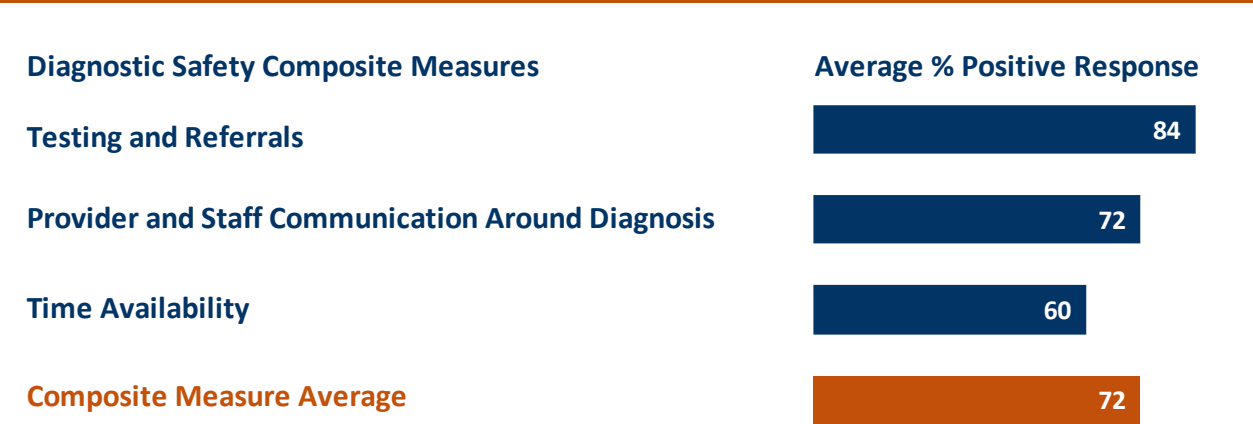
**Chart 1** shows the average percent positive response for each of the three diagnostic safety culture composite measures. The diagnostic safety culture composite measures are shown in order from the highest average percent positive response to the lowest.

## Item Results

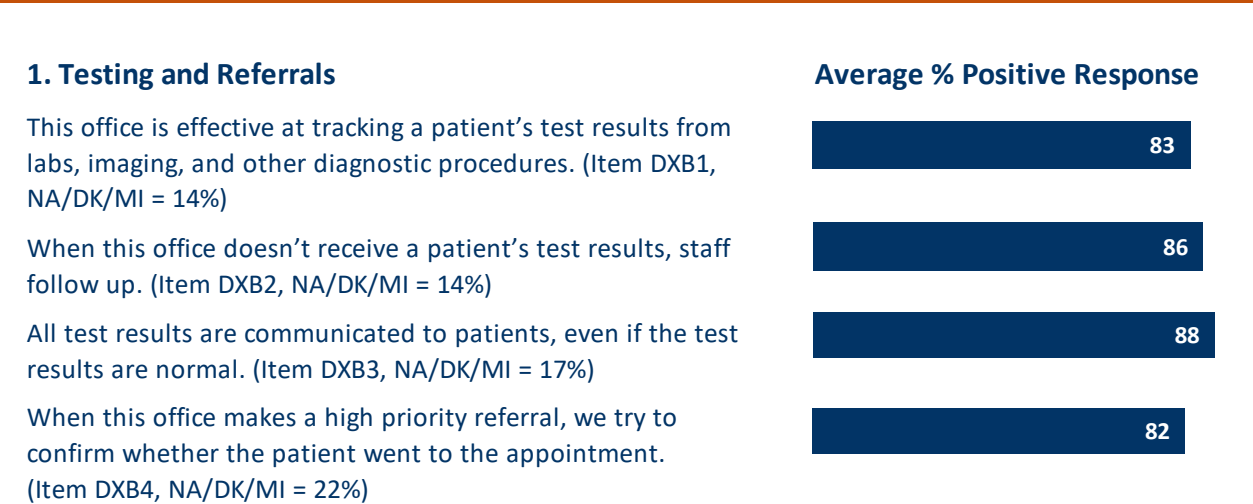
**Chart 2** shows the average percent positive response for each of the 12 survey items. Items are listed in the respective composite measure they are intended to measure. Within each composite measure, the items are presented in the order in which they appear in the survey.

Chart 2 also provides the average percentages of respondents answering, “Does Not Apply or Don’t Know” (NA/DK) or those who did not answer (item missing [MI]) for each item (see Appendix C for how these percentages are calculated). For all but three items, the average NA/DK/MI percentages ranged from 9 percent to 23 percent. However, three items within the composite measure *Provider and Staff Communication Around Diagnosis* had higher average percentages of NA/DK/MI, ranging from 41 to 50 percent. When these items were further investigated, most providers (e.g., physicians, physician assistants, nurse practitioners) answered these questions. However, nonprovider staff accounted for most of those selecting “Does Not Apply or Don’t Know.” This finding indicates room for improvement in communications with nonprovider staff on these items, which focus on providers documenting differential diagnosis; communicating with providers who may have missed a diagnosis; and being informed when a missed, wrong, or delayed diagnosis happens.

**Chart 1. SOPS Diagnostic Safety Composite Measure Results - Average Percent Positive Response – 2024 Results**



**Chart 2. SOPS Diagnostic Safety Item Results - Average Percent Positive Response – 2024 Results (Page 1 of 2)**



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

**Chart 2. SOPS Diagnostic Safety Item Results - Average Percent Positive Response - 2024 Results (Page 2 of 2)**

**2. Provider and Staff Communication Around Diagnosis**

Providers in this office encourage staff to share their concerns about a patient’s health condition. (Item DXC1, NA/DK/MI = 13%)

**Average % Positive Response**



Providers document differential diagnoses when they have **not** ruled out other diagnoses. (Item DXC2, NA/DK/MI = 41%)



When a provider thinks another provider in this office/system may have missed a diagnosis, they inform that provider. (Item DXC3, NA/DK/MI = 50%)



When a missed, wrong, or delayed diagnosis happens in this office, we are informed about it. (Item DXC4, NA/DK/MI = 45%)



Providers in this office talk directly with specialists/radiologists/pathologists when something needs clarification. (Item DXC5, NA/DK/MI = 23%)



**3. Time Availability**

The amount of time for appointments is long enough to fully evaluate the patient’s presenting problem(s). (Item DXA1, NA/DK/MI = 9%)



Providers in this office have enough time to review the relevant information related to the patient’s presenting problem(s). (Item DXA2, NA/DK/MI = 11%)



Providers in this office finish their patient notes by the end of their regular workday. (Item DXA3, NA/DK/MI = 15%)



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

# Appendix A: Results by Medical Office Characteristics

## Number of Providers

**Note:** The number of medical offices and respondents by number of providers is shown in each table. However, the number of medical offices and respondents corresponding to each data cell will vary because of the omission of a specific survey item and individual nonresponse/missing data.



**Table A-1. Composite Measure Average Percent Positive Response by Number of Providers – 2024 SOPS Diagnostic Safety Supplemental Item Results**

SOPS Diagnostic Safety Composite Measures	Number of Providers			
	1	2	3 to 5	6 or More
<i># Medical Offices</i>	17	24	43	18
<i># Respondents</i>	126	128	321	185
<b>1. Testing and Referrals</b>	78%	87%	88%	77%
<b>2. Provider and Staff Communication Around Diagnosis</b>	71%	76%	72%	67%
<b>3. Time Availability</b>	77%	68%	52%	55%
<b>Composite Measure Average</b>	74%	77%	71%	66%

**Table A-2. Item Average Percent Positive Response by Number of Providers – 2024 SOPS Diagnostic Safety Supplemental Item Results (Page 1 of 2)**

Survey Items by SOPS Diagnostic Safety Composite Measure	Number of Providers			
	1	2	3 to 5	6 or More
<i># Medical Offices</i>	17	24	43	18
<i># Respondents</i>	126	128	321	185
<b>1. Testing and Referrals</b>	% Strongly Agree/Agree			
This office is effective at tracking a patient’s test results from labs, imaging, and other diagnostic procedures. (Item DXB1)	79%	84%	86%	77%
When this office doesn’t receive a patient’s test results, staff follow up. (Item DXB2)	84%	92%	88%	75%
All test results are communicated to patients, even if the test results are normal. (Item DXB3)	76%	92%	90%	83%
When this office makes a high priority referral, we try to confirm whether the patient went to the appointment. (Item DXB4)	76%	84%	86%	76%
<b>2. Provider and Staff Communication Around Diagnosis</b>	% Strongly Agree/Agree			
Providers in this office encourage staff to share their concerns about a patient’s health condition. (Item DXC1)	78%	84%	85%	73%
Providers document differential diagnoses when they have <b>not</b> ruled out other diagnoses. (Item DXC2)	65%	68%	62%	58%
When a provider thinks another provider in this office/system may have missed a diagnosis, they inform that provider. (Item DXC3)	56%	68%	49%	55%
When a missed, wrong, or delayed diagnosis happens in this office, we are informed about it. (Item DXC4)	62%	64%	62%	54%
Providers in this office talk directly with specialists/radiologists/pathologists when something needs clarification. (Item DXC5)	86%	90%	88%	91%

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

**Table A-2. Item Average Percent Positive Response by Number of Providers – 2024 SOPS Diagnostic Safety Supplemental Item Results (Page 2 of 2)**

Survey Items by SOPS Diagnostic Safety Composite Measure	Number of Providers			
	1	2	3 to 5	6 or More
<i># Medical Offices</i>	17	24	43	18
<i># Respondents</i>	126	128	321	185
<b>3. Time Availability</b>	% Strongly Agree/Agree			
The amount of time for appointments is long enough to fully evaluate the patient’s presenting problem(s). (Item DXA1)	87%	69%	57%	65%
Providers in this office have enough time to review the relevant information related to the patient’s presenting problem(s). (Item DXA2)	85%	77%	60%	60%
Providers in this office finish their patient notes by the end of their regular workday. (Item DXA3)	58%	55%	37%	40%

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

# Appendix B: Results by Respondent Characteristics

## Staff Position

**Note:** The number of medical offices and respondents by staff position is shown in each table. However, the number of medical offices and respondents corresponding to each data cell will vary because of the omission of a specific survey item and individual nonresponse/missing data. In addition, respondents who selected “Other position” were omitted.

**Table B-1. Composite Measure Average Percent Positive Response by Staff Position – 2024 SOPS Diagnostic Safety Supplemental Item Results**

SOPS Diagnostic Safety Composite Measures	Staff Position					
	Admin./ Clerical Staff	Mgmt.	Nurse (RN/LVN/ LPN)	PA/NP/CNS/ Midwife/APN, etc.	Physician (M.D. or D.O.)	Other Clinical Staff or Clinical Support Staff
<i># Medical Offices</i>	65	51	70	45	35	74
<i># Respondents</i>	150	69	165	60	51	187
<b>1. Testing and Referrals</b>	81%	85%	87%	88%	80%	89%
<b>2. Provider and Staff Communication Around Diagnosis</b>	59%	76%	64%	80%	85%	72%
<b>3. Time Availability</b>	62%	58%	52%	47%	56%	66%
<b>Composite Measure Average</b>	67%	72%	68%	72%	74%	76%

**Table B-2. Item Average Percent Positive Response by Staff Position – 2024 SOPS Diagnostic Safety Supplemental Item Results (Page 1 of 2)**

Survey Items by SOPS Diagnostic Safety Composite Measure	Staff Position					
	Admin./ Clerical Staff	Mgmt.	Nurse (RN/LVN/ LPN)	PA/NP/CNS/ Midwife/APN, etc.	Physician (M.D. or D.O.)	Other Clinical Staff or Clinical Support Staff
<i># Medical Offices</i>	65	51	70	45	35	74
<i># Respondents</i>	150	69	165	60	51	187
<b>1. Testing and Referrals</b>	% Strongly Agree/Agree					
This office is effective at tracking a patient’s test results from labs, imaging, and other diagnostic procedures. (Item DXB1)	78%	83%	89%	81%	74%	88%
When this office doesn’t receive a patient’s test results, staff follow up. (Item DXB2)	86%	85%	91%	91%	79%	89%
All test results are communicated to patients, even if the test results are normal. (Item DXB3)	78%	84%	88%	93%	86%	96%
When this office makes a high priority referral, we try to confirm whether the patient went to the appointment. (Item DXB4)	82%	84%	79%	84%	84%	88%
<b>2. Provider and Staff Communication Around Diagnosis</b>	% Strongly Agree/Agree					
Providers in this office encourage staff to share their concerns about a patient’s health condition. (Item DXC1)	62%	91%	81%	100%	92%	79%
Providers document differential diagnoses when they have <b>not</b> ruled out other diagnoses. (Item DXC2)	46%	63%	54%	71%	84%	66%
When a provider thinks another provider in this office/system may have missed a diagnosis, they inform that provider. (Item DXC3)	54%	54%	45%	59%	74%	56%
When a missed, wrong, or delayed diagnosis happens in this office, we are informed about it. (Item DXC4)	51%	71%	48%	68%	73%	61%
Providers in this office talk directly with specialists/radiologists/pathologists when something needs clarification. (Item DXC5)	77%	89%	85%	97%	97%	91%

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

**Table B-2. Item Average Percent Positive Response by Staff Position – 2024 SOPS Diagnostic Safety Supplemental Item Results (Page 2 of 2)**

Survey Items by SOPS Diagnostic Safety Composite Measure	Staff Position					
	Admin./ Clerical Staff	Mgmt.	Nurse (RN/LVN/ LPN)	PA/NP/CNS/ Midwife/APN, etc.	Physician (M.D. or D.O.)	Other Clinical Staff or Clinical Support Staff
# Medical Offices	65	51	70	45	35	74
# Respondents	150	69	165	60	51	187
<b>3. Time Availability</b>	% Strongly Agree/Agree					
The amount of time for appointments is long enough to fully evaluate the patient’s presenting problem(s). (Item DXA1)	65%	68%	55%	60%	57%	73%
Providers in this office have enough time to review the relevant information related to the patient’s presenting problem(s). (Item DXA2)	70%	67%	59%	51%	65%	74%
Providers in this office finish their patient notes by the end of their regular workday. (Item DXA3)	47%	41%	42%	30%	44%	50%

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

# Appendix B: Results by Respondent Characteristics

## Tenure in Medical Office

**Note:** The number of medical offices and respondents by tenure is shown in each table. However, the number of medical offices and respondents corresponding to each data cell will vary because of the omission of a specific survey item and individual nonresponse/missing data.



**Table B-3. Composite Measure Average Percent Positive Response by Tenure in Medical Office – 2024 SOPS Diagnostic Safety Supplemental Item Results**

SOPS Diagnostic Safety Composite Measures	Tenure in Medical Office		
	<1 Year	1 Year to <6 Years	6 Years or More
<i># Medical Offices</i>	56	89	92
<i># Respondents</i>	109	323	300
<b>1. Testing and Referrals</b>	88%	84%	84%
<b>2. Provider and Staff Communication Around Diagnosis</b>	73%	71%	71%
<b>3. Time Availability</b>	70%	57%	58%
<b>Composite Measure Average</b>	74%	71%	71%

**Table B-4. Item Average Percent Positive Response by Tenure in Medical Office – 2024 SOPS Diagnostic Safety Supplemental Item Results**  
(Page 1 of 2)

Survey Items by SOPS Diagnostic Safety Composite Measure	Tenure in Medical Office		
	<1 Year	1 Year to <6 Years	6 Years or More
<i># Medical Offices</i>	56	89	92
<i># Respondents</i>	109	323	300
<b>1. Testing and Referrals</b>	% Strongly Agree/Agree		
This office is effective at tracking a patient’s test results from labs, imaging, and other diagnostic procedures. (Item DXB1)	84%	79%	87%
When this office doesn’t receive a patient’s test results, staff follow up. (Item DXB2)	94%	83%	86%
All test results are communicated to patients, even if the test results are normal (Item DXB3)	92%	87%	86%
When this office makes a high priority referral, we try to confirm whether the patient went to the appointment. (Item DXB4)	82%	89%	77%
<b>2. Provider and Staff Communication Around Diagnosis</b>	% Strongly Agree/Agree		
Providers in this office encourage staff to share their concerns about a patient’s health condition. (Item DXC1)	82%	80%	82%
Providers document differential diagnoses when they have <b>not</b> ruled out other diagnoses. (Item DXC2)	75%	64%	63%
When a provider thinks another provider in this office/system may have missed a diagnosis, they inform that provider. (Item DXC3)	45%	58%	54%
When a missed, wrong, or delayed diagnosis happens in this office, we are informed about it. (Item DXC4)	59%	63%	60%
Providers in this office talk directly with specialists/radiologists/pathologists when something needs clarification. (Item DXC5)	91%	88%	91%

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

**Table B-4. Item Average Percent Positive Response by Tenure in Medical Office – 2024 SOPS Diagnostic Safety Supplemental Item Results  
(Page 2 of 2)**

Survey Items by SOPS Diagnostic Safety Composite Measure	Tenure in Medical Office		
	<1 Year	1 Year to <6 Years	6 Years or More
<i># Medical Offices</i>	56	89	92
<i># Respondents</i>	109	323	300
<b>3. Time Availability</b>	% Strongly Agree/Agree		
The amount of time for appointments is long enough to fully evaluate the patient’s presenting problem(s). (Item DXA1)	82%	64%	62%
Providers in this office have enough time to review the relevant information related to the patient’s presenting problem(s). (Item DXA2)	73%	68%	61%
Providers in this office finish their patient notes by the end of their regular workday. (Item DXA3)	51%	38%	48%

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

# Appendix C: Explanation of Calculations

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

## Calculation of Percent Positive Scores

All the items from the SOPS Diagnostic Safety Supplemental Item Set ask respondents to answer using 5-point response options in terms of agreement (Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree).

The survey's items also include a "Does Not Apply or Don't Know" response option. Respondents who had missing responses or supplied a "Does Not Apply or Don't Know" response option were excluded when calculating percentages.

### Item Percent Positive Response

The survey only includes positively worded items:

- **Percent positive response** is the combined percentage of respondents within a medical office who answered "Strongly Agree" or "Agree."

For example, for the item "The amount of time for appointments is long enough to fully evaluate the patient's presenting problem(s)," 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.

### Composite Measure Percent Positive Response

The three diagnostic safety culture composite measures are composed of three, four, or five 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 50.2 percent, 55.7 percent, and 60.1 percent, the medical office's composite measure percent positive response would be the average of these three percentages, or 55.3 percent positive, and displayed as the rounded percentage of 55 percent.

### Item and Composite Measure Percent Positive Scores

We calculated average percent positive scores for each of the three diagnostic safety culture composite measures and survey items by averaging the unrounded medical office-level percent positive scores of all participating medical offices. 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.

**Table C-1** shows an example of computing a percent positive score and the calculation of the Does Not Apply or Don't Know and Missing (NA/DK/MI) percentages for the composite measure *Time Availability*.

**Table C-1. Computing Item and Composite Measure Percent Positive Scores and NA/DK/MI**

Three Items Measuring "Time Availability"	Calculation of Percent Positive			Calculation of Percent NA/DK/MI		
	# of "Strongly Agree" or "Agree" Responses	Total # of Responses to the Item (Excluding NA/DK/MI Responses)	Percent Positive Response	Total # of NA/DK/MI Responses	Total # of Respondents in Medical Office	Percent NA/DK/MI
"The amount of time for appointments is long enough to fully evaluate the patient's presenting problem(s)."	110	240	110/240= 45.8%	50	290	50/290 = 17.2%
"Providers in this office have enough time to review the relevant information related to the patient's presenting problem(s)."	140	250	140/250= 56.0%	100	350	100/350 = 28.6%
"Providers in this office finish their patient notes by the end of their regular workday."	125	260	125/260= 48.1%	40	300	40/300 = 13.3%
<b>Composite Measure Percent Positive Score =</b> (45.8% + 56.0% + 48.1%) / 3 = <b>50%</b>				--	--	--

The *Composite Measure Average* is calculated by averaging the average percent positive response for all three composite measures.