

# AI LANDSCAPE ANALYSIS WEIGHTED TOPLINE

SEPTEMBER 2022

SSRS Job #V1016



**General Notes:**

- Percentages may not add to 100% due to rounding.
- An asterisk indicates less than 1%

**Main Questionnaire**

**SECTION A: Use of AI-Enabled Medical Imaging Tools**

The first few questions ask about Artificial Intelligence (AI)-enabled medical imaging tools/algorithms and how, if at all, your hospital is using these tools.

For purposes of this survey, **AI-enabled medical imaging tools** are defined as: medical imaging software, products, devices or algorithms that perform a task(s) typically associated with human intelligence, such as problem-solving or pattern recognition.

1. Based on this definition, in what ways, if at all, is your hospital currently using any AI-enabled medical imaging tools? This can be for any anatomic area or modality.

<b>Image interpretation/analysis in clinical setting</b>		
Yes		32%
No		67%
Web Blank/Refused		*
<b>Clinical workflow (e.g., scheduling, reducing wait times)</b>		
Yes		16%
No		81%
Web Blank/Refused		2%
Yes		11%
No		85%
Web Blank/Refused		4%

2. How many AI-enabled medical imaging tools, if any, in your hospital are FDA-cleared? By FDA-cleared we mean a product, software, or device that has been authorized for use by the FDA and is marketed as relying on AI for some aspect of its functioning. *(Your best estimate is fine.)*

Currently in use	
0	64%
1	16%
2	7%
3 to 5	3%
6 to 10	*
11 to 50	*
51+	*
Blank/refused	10%
Currently in testing/pilot	
0	84%
1	4%
2	1%
3 to 5	*
6 to 10	*
11 to 50	*
51+	*
Blank/refused	11%
In pipeline (next ~2 years)	
0	79%
1	4%
2	3%
3 to 5	1%
6 to 10	*
11 to 50	1%
51+	*
Blank/refused	11%

(ASK IF USES FDA-CLEARED AI TOOLS (Q2=1 OR MORE))

3. In which of the following ways is your hospital currently using or planning to use (i.e., in the next ~2 years) FDA-cleared AI-enabled medical imaging tools?

Please select all that apply.

<b>Image interpretation/analysis</b>	
Currently in use	74%
Currently in testing/pilot	12%
In pipeline (next~2 years)	20%
Not currently using/Not in pipeline	9%
Blank/refused	1%
<b>Worklist prioritization (e.g., patient triage, CADt)</b>	
Currently in use	44%
Currently in testing/pilot	8%
In pipeline (next~2 years)	16%
Not currently using/Not in pipeline	33%
Blank/refused	6%
<b>Opportunistic screening/population health management</b>	
Currently in use	18%
Currently in testing/pilot	6%
In pipeline (next~2 years)	18%
Not currently using/Not in pipeline	55%
Blank/refused	6%
<b>Image enhancements</b>	
Currently in use	8%
Currently in testing/pilot	6%
In pipeline (next~2 years)	22%
Not currently using/Not in pipeline	60%
Blank/refused	8%
<b>Clinical workflow process improvements</b>	
Currently in use	12%
Currently in testing/pilot	7%
In pipeline (next~2 years)	19%
Not currently using/Not in pipeline	57%
Blank/refused	8%

(ASK IF USES FDA-CLEARED AI TOOLS (Q2=1 OR MORE))

3aa. On which patient populations does your hospital currently use any FDA-cleared AI-enabled medical imaging tools? (Please select one.)

Both adult (i.e., 22 years or older) and pediatric (i.e., less than 22 years old) populations	23%
Only adult populations (i.e., 22 years or older)	60%
Not sure	14%
Blank/refused	3%

4. How many AI-enabled medical imaging tools in your hospital, if any, are homegrown? By homegrown we mean any tools that were developed for use within your hospital or hospital system. (*Your best estimate is fine.*)

Currently in use	
0	88%
1	2%
2	1%
3 to 5	1%
6 to 10	*
11 to 50	*
51+	*
Blank/refused	8%
Currently in testing/pilot	
0	88%
1	3%
2	*
3 to 5	*
6 to 10	*
11 to 50	*
51+	*
Blank/refused	9%
In pipeline (next ~2 years)	
0	89%
1	2%
2	1%
3 to 5	*
6 to 10	*
11 to 50	*
51+	*
Blank/refused	8%

(ASK IF USES HOMEGROWN AI TOOLS (Q4=1 OR MORE))

5. In which of the following ways is your hospital currently using or planning to use (i.e., in the next ~2 years) homegrown AI-enabled medical imaging tools? *(Please select all that apply.)*

<b>Image interpretation/analysis</b>	
Currently in use	39%
Currently in testing/pilot	29%
In pipeline (next ~2 years)	28%
Not currently using/Not in pipeline	20%
Blank/refused	8%
<b>Worklist prioritization (e.g., patient triage, CADt)</b>	
Currently in use	22%
Currently in testing/pilot	15%
In pipeline (next~2 years)	14%
Not currently using/Not in pipeline	44%
Blank/refused	13%
<b>Opportunistic screening/population health management</b>	
Currently in use	22%
Currently in testing/pilot	13%
In pipeline (next ~2 years)	15%
Not currently using/Not in pipeline	50%
Blank/refused	7%
<b>Image enhancements</b>	
Currently in use	13%
Currently in testing/pilot	9%
In pipeline (next ~2 years)	23%
Not currently using/Not in pipeline	51%
Blank/refused	14%
<b>Clinical workflow process improvements</b>	
Currently in use	22%
Currently in testing/pilot	16%
In pipeline (next ~2 years)	35%
Not currently using/Not in pipeline	33%
Blank/refused	3%

**SECTION B: Evaluating and Monitoring FDA-Cleared AI-enabled Medical Imaging Tools**

(ASK IF USES FDA-CLEARED AI TOOLS (Q2=1 OR MORE))

INTRO:

The next few questions are about ways hospitals may be evaluating FDA-cleared AI-enabled medical imaging tools for use and monitoring those in use. Given that AI-enabled medical imaging tools are new, your hospital may or may not have any protocols in place, at present, or may still be developing them.

(ASK IF USES FDA-CLEARED AI TOOLS (Q2=1 OR MORE))

6. How, if at all, has your hospital evaluated the FDA-cleared AI-enabled medical imaging tools prior to use?

<b>Received information about training and validation datasets used to create algorithm(s)</b>	
For all tools	32%
Some tools	20%
No tools	13%
Not sure	26%
Blank/refused	9%
<b>Tested with sample of our hospital's patient imaging data</b>	
For all tools	24%
Some tools	17%
No tools	22%
Not sure	27%
Blank/refused	10%
<b>Visited/consulted with another peer institution that is currently using the tool(s)</b>	
For all tools	27%
Some tools	18%
No tools	17%
Not sure	27%
Blank/refused	11%
<b>Piloted within our hospital/system</b>	
For all tools	24%
Some tools	16%
No tools	28%
Not sure	23%
Blank/refused	9%

(ASK IF USES FDA-CLEARED AI TOOLS (Q2=1 OR MORE))

7. How would you describe your hospital’s approach to monitoring FDA-cleared AI-enabled medical imaging tools? *(Please select one.)*

At set intervals based on specific protocols or pre-defined measures	29%
Periodically or as issues come up	34%
No monitoring currently in place	27%
Blank/refused	10%

(ASK IF MONITORS AI TOOLS (Q7=1 OR 2))

8. Which of the following best describes how, if at all, your hospital monitors the performance of the FDA-cleared AI-enabled medical imaging tools?

*(Please select one.)*

The AI-tool vendor provides the service	16%
Our hospital monitors the performance internally (e.g., via dashboard or registry)	20%
A combination of both the AI-tool vendor providing services and our hospital monitoring the performance internally	45%
Another process	9%
Blank/refused	10%

**SECTION C: Benefits and Barriers of AI-enabled Medical Imaging Tools**

The next two questions are about potential benefits and barriers to adopting and using/increasing use of AI-enabled medical imaging tools. If your hospital is not currently using any AI-enabled medical imaging tools, please think about potential benefits and barriers to using these tools.

9. How much of a benefit, if at all, are each of the following to using, or increasing use of, AI-enabled medical imaging tools?

<b>Reduced costs/Improved ROI</b>	
Major benefit	47%
Minor benefit	30%
Not a benefit	19%
Blank/refused	4%
<b>Improved quality of care/diagnostic accuracy</b>	
Major benefit	68%
Minor benefit	22%
Not a benefit	7%
Blank/refused	3%
<b>Improved clinician efficiency and productivity</b>	
Major benefit	61%
Minor benefit	26%
Not a benefit	10%
Blank/refused	3%
<b>Enhanced market differentiation</b>	
Major benefit	21%
Minor benefit	44%
Not a benefit	30%
Blank/refused	4%
<b>Enhanced patient experience (e.g., shorter wait times)</b>	
Major benefit	38%
Minor benefit	39%
Not a benefit	19%
Blank/refused	4%

<b>Major or Minor Benefit Summary</b>	
Reduced costs/Improved ROI	77%
Improved quality of care/diagnostic accuracy	90%
Improved clinician efficiency and productivity	87%
Enhanced market differentiation	66%

Enhanced patient experience (e.g., shorter wait times)	77%
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10. How much of a barrier, if at all, are each of the following to using, or increasing use of, AI-enabled medical imaging tools?

<b>Cost/Unknown or insufficient ROI</b>	
Major barrier	65%
Minor barrier	25%
Not a barrier	7%
Blank/refused	3%
<b>Complexity of, or uncertainty about workflow integration</b>	
Major barrier	40%
Minor barrier	45%
Not a barrier	11%
Blank/refused	4%
<b>Not part of leadership's priorities/strategic plan</b>	
Major barrier	33%
Minor barrier	37%
Not a barrier	26%
Blank/refused	3%
<b>Concerns about integrating in current technology infrastructure</b>	
Major barrier	42%
Minor barrier	41%
Not a barrier	14%
Blank/refused	3%
<b>Extent of training needed/learning curve is too steep</b>	
Major barrier	21%
Minor barrier	56%
Not a barrier	20%
Blank/refused	3%
<b>Performance concerns (e.g., not accurate/don't work well)</b>	
Major barrier	35%
Minor barrier	43%
Not a barrier	18%
Blank/refused	4%
<b>Technology is too new/not standard practice</b>	
Major barrier	32%

Minor barrier	47%
Not a barrier	18%
Blank/refused	3%
No perceived need (e.g., current use case is too narrow/not applicable)	
Major barrier	24%
Minor barrier	45%
Not a barrier	28%
Blank/refused	3%
<b>Cybersecurity concerns</b>	
Major barrier	28%
Minor barrier	49%
Not a barrier	20%
Blank/refused	4%

<b>Major or Minor Barrier Summary</b>	
Cost/Unknown or insufficient ROI	90%
Complexity of, or uncertainty about workflow integration	85%
Not part of leadership's priorities/strategic plan	70%
Concerns about integrating in current technology infrastructure	83%
Extent of training needed/learning curve is too steep	77%
Performance concerns	78%
Technology is too new/not standard practice	78%
No perceived need	68%
Cybersecurity concerns	77%

**SECTION D: Demographics**

11. Is your hospital part of a hospital or health system?

Yes	66%
No	33%
Blank/refused	1%

12. Including your hospital, how many hospitals are in your system? (*Your best estimate is fine*)

1 to 5	30%
6 to 10	21%
11 to 50	29%
51 to 100	8%
101+	9%
Blank/refused	3%

13. What percent of patients at your hospital fall into the following categories? *Your best estimate is fine. Total should add to about 100%*

<b>Medicare</b>	
0% to less than 10%	4%
10% to less than 25%	7%
25% to less than 50%	50%
50% to less than 75%	29%
75% or more	4%
Blank/refused	6%
<b>Medicaid/CHIP</b>	
0% to less than 10%	13%
10% to less than 25%	46%
25% to less than 50%	28%
50% to less than 75%	6%
75% or more	1%
Blank/refused	6%
<b>Other public insurance</b>	
0% to less than 10%	63%
10% to less than 25%	19%
25% to less than 50%	3%
50% to less than 75%	1%
75% or more	*
Blank/refused	14%
<b>Private insurance</b>	
0% to less than 10%	11%
10% to less than 25%	32%
25% to less than 50%	44%
50% to less than 75%	7%

75% or more	1%
Blank/refused	6%
<b>Uninsured</b>	
0% to less than 10%	62%
10% to less than 25%	28%
25% to less than 50%	2%
50% to less than 75%	*
75% or more	*
Blank/refused	7%
<b>Other</b>	
0% to less than 10%	67%
10% to less than 25%	1%
25% to less than 50%	*
50% to less than 75%	*
75% or more	1%
Blank/refused	30%

14. What percent of the patients in your hospital are:

<b>White</b>	
0% to less than 10%	2%
10% to less than 25%	6%
25% to less than 50%	18%
50% to less than 75%	34%
75% or more	33%
Blank/refused	6%
<b>African American or Black</b>	
0% to less than 10%	35%
10% to less than 25%	30%
25% to less than 50%	22%
50% to less than 75%	4%
75% or more	1%
Blank/refused	7%
<b>Hispanic or Latino</b>	
0% to less than 10%	37%
10% to less than 25%	31%
25% to less than 50%	17%
50% to less than 75%	4%
75% or more	2%
Blank/refused	8%
<b>Asian</b>	
0% to less than 10%	73%
10% to less than 25%	15%
25% to less than 50%	2%
50% to less than 75%	1%
75% or more	*
Blank/refused	10%
<b>Native Hawaiian/Pacific Islander/American Indian/Alaskan Native</b>	
0% to less than 10%	82%
10% to less than 25%	5%
25% to less than 50%	2%
50% to less than 75%	*
75% or more	*
Blank/refused	10%

15. What is your title?

Chief Medical Officer (CMO)	62%
Chief Medical Information Officer (CMIO)	1%
Other	36%
Blank/refused	2%

16. Who else, if anyone, did you consult with to complete this survey?  
(Select all that apply)

CCO (Chief Clinical Officer)	2%
CTO (Chief Technology Officer)	3%
Chief Radiologist	18%
Other	16%
No one, I completed it independently	65%
Blank/refused	2%

17. We may follow up with some survey participants to gather more in-depth information.  
Can we contact you again to ask a few more questions?

Yes	39%
No	55%
Blank/refused	6%

(ASK IF AGREED TO BE RECONTACTED (Q17=1))

18. Thank you. Please provide your name, email address and best phone number on which to reach you.

Name: \_\_\_\_\_  
999 WEB BLANK

Email address: \_\_\_\_\_  
999 WEB BLANK

Phone number: \_\_\_\_\_  
999 WEB BLANK

(ASK ALL)

19. Would you like us to send you a summary of the survey highlights via email?

Yes	68%
No	32%

(ASK IF WOULD LIKE A SUMMARY OF SURVEY HIGHLIGHTS (Q19=1))

20. Please provide your email address below, so we can send you a summary of the survey highlights.

Email Address: \_\_\_\_\_  
999 Web Blank

(ASK IF WOULD LIKE A SUMMARY OF SURVEY HIGHLIGHTS AND ENTERED AN EMAIL ADDRESS (Q19=1 AND Q20 IS NOT BLANK))

21. Please verify that this is your correct email address.

[PN: DISPLAY ENTERED TEXT FROM Q20.]

1 Yes  
2 No [IF SELECTED, GO BACK TO Q20.]  
999 Web Blank

(SHOW TO ALL)

This is the end of the survey. Thank you, we greatly appreciate your time and cooperation!