

AI IN HEALTH CARE: KEY ASSESSMENT CRITERIA

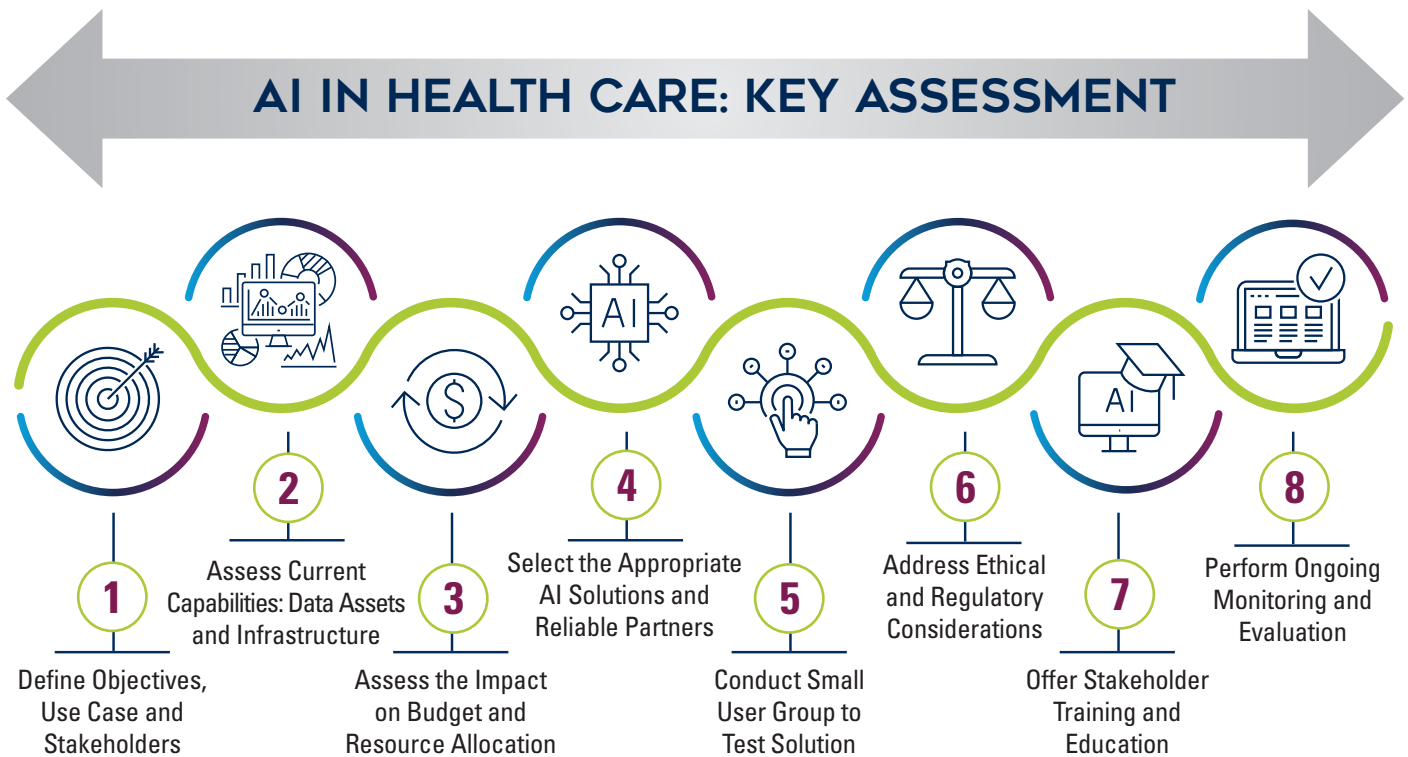


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AI IN HEALTH CARE: KEY ASSESSMENT CRITERIA

As artificial intelligence (AI) becomes more widespread, understanding where to effectively apply these tools is increasingly important. This checklist is designed to help health care professionals, administrators and clinicians assess the readiness of AI systems. The tool provides a framework for reviewing key aspects of AI solutions, by guiding users through critical evaluation areas such as privacy, clinical workflow, system integration and bias mitigation.



1 Define Objectives, Use Case and Stakeholders

✓ Clinical Impact

- Identify the clinical need or problem needing to be addressed with AI

✓ Key Metric Evaluation

- Which metrics have the most variation/gaps?
- Which metrics are most easily improved?
- Which metrics are the most intensely scrutinized by the public?
- Which metrics would increase opportunities for reimbursement?

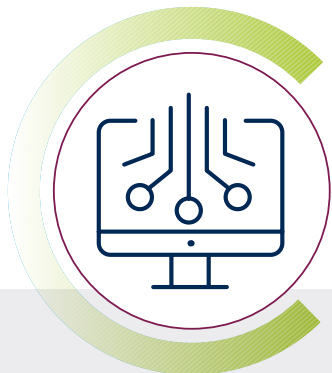
✓ Prioritization

- Identify the top two to three focus areas

✓ Stakeholder Engagement

- Include representatives from the following teams: clinical, operations, legal, finance, IT and C-suite

Understanding where
to effectively apply
these tools is
**INCREASINGLY
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COMMON USE CASES



ADMINISTRATIVE USES

- **Voice-to-Text Technologies:** Efficient transcription for summaries and documentation
- **Claims and Prior Authorization:** Streamlining claims processing and prior authorization workflows
- **Back-Office Efficiency and Supply Chain Management:** Enhancing operational processes

CLINICAL DECISION SUPPORT

- **Guideline Navigation:** Supporting clinicians in searching clinical guidelines
- **Literature Review:** Assisting clinicians in identifying the most relevant search results in the general body of literature
- **AI for Diagnostic Screening:** Supporting early detection and diagnosis
- **Chatbots For Patient Education:** Engaging patients with AI chatbots to provide educational resources

2 Assess Current Capabilities: Data Assets and Infrastructure

- ✓ **Data Sources:** Establish what types of data will be used (i.e., electronic health records [EHRs], imaging)
- ✓ **Data Quality:** Ensure data is accurate, inclusive and interoperable
- ✓ **Privacy and Security:** Establish guardrails to protect patient data
- ✓ **Data Governance:** Ensure patient data supports clinical decision-making while following standards and regulations

3 Assess the Impact on Budget and Resource Allocation

- ✓ Establish a clear resource allocation plan that aligns staffing, training and budget with the support implementation and adoption
- ✓ Regularly assess and adjust resources based on usage patterns and feedback to ensure sustained impact and scalability
- ✓ Demonstrate alignment with strategic goals of the practice with a willingness to implement, integrate and scale with an eye toward long-term budget implications



What is your vendor's **DATA PRIVACY AND SECURITY PLAN?**

4 Select the Appropriate AI Solutions and Reliable Partners

Vendor Evaluation

- ✓ Proven experience in health care
- ✓ Regulatory compliance (U.S. Food and Drug Administration, CE): Ask for documentation of the company's compliance processes and certifications
- ✓ Integration capabilities with existing EHR system
- ✓ Performance and accuracy
 - **Accuracy:** How accurate is the AI-generated output?
 - **Completeness:** How comprehensive is the AI-generated output? Does it include all relevant information?
 - **Consistency:** Does it provide consistent recommendations or outputs across different scenarios?
- ✓ Validated clinical outcomes in real world settings
 - **Trial Results:** What were the outcomes of any pilot testing or research trials?
 - **Population Distribution:** Does the population you plan to use the AI in reflect the population in which this AI was derived and tested?
- ✓ Workflow integration (User experience and satisfaction)
 - **Understandability:** Is the AI-generated content presented in a clear manner?
 - **Customizability:** Is the technology agile enough for local implementation needs?
- ✓ Data privacy and security
 - **Incident Response Plan:** What is the company plan for data breaches or security incidents?
 - **Data Encryption:**
 - Is patient data securely managed, accessible, resistant to cyberattacks all while enabling accurate analysis? (Note: this needs to be an iterative process)
 - How does the company manage data encryption? (Be specific and ask how the vendor manages data de-identification and anonymization)
 - **HIPAA:** Ensure AI systems that manage personal health information have secured their data in accordance with HIPAA guidelines (Note: standard publicly available generative AI tools may need additional safeguards)

- ✓ Cost and Return on Investment (ROI)
 - What is the total upfront and ongoing cost of implementing the AI tool including resources, training, licensing, deployment of the solution and maintenance?
 - What is the anticipated ROI over one-, three- and five-year periods?
 - What are the costs associated with scaling the AI tool across departments?
 - What are the expected efficiency gains (e.g., reduced diagnostic errors, improved patient throughput)?
 - Is there an increase in operational efficiency or clinical outcomes?
 - Do the solutions align with current reimbursement trends?
 - Does the solution enhance revenue potential without significantly increasing cost burden on patients?
- ✓ Bias mitigation
 - **Algorithm Transparency:** Inputs and outputs of the AI models are known
 - **Stakeholder Involvement:** Ensure that vendor has a diverse team involved in development of algorithms
 - **Bias Audits:** Ongoing monitoring to ensure vendor has a plan for continuous monitoring to identify any bias in algorithms
 - **Patient Data:** Confirm data used for algorithm training, diagnostics and predictive analytics is safeguarded for privacy and still promotes trust in digital health technologies

5 Test Solution With Small User Group

- ✓ Identify a clinical champion with fiscal responsibility
- ✓ Establish a diverse group of users to ensure applicability
- ✓ Define measures of success:
 - Time saved in clinical documentation
 - Accuracy of AI-generated output
 - Feedback from clinicians and patients
 - Improvement in patient outcomes
 - Decreased resource utilization



What is the total
**UPFRONT AND
ONGOING COST**
of implementing the AI solution?



6 Address Ethical and Regulatory Considerations



RESPONSIBLE AI

- ✓ **Collaborative Intelligence:** Integrating human expertise with AI systems for optimal outcomes
- ✓ **Cybersecurity:** Safeguarding sensitive health care data with AI-driven security measures
- ✓ **Bias and Equity:** Ensure models do not introduce bias in treatment recommendations
- ✓ **Explainability:** Implement AI systems that provide transparency in the decision-making process

7 Offer Stakeholder Training and Education

- ✓ Develop tailored training materials based on various skills levels
- ✓ Offer training on AI ethics, privacy and security risk
- ✓ Provide resources for ongoing support (i.e., frequently asked questions)
- ✓ Check out ACC's [AI Resource Center](#)

8 Perform Ongoing Monitoring and Evaluation

- ✓ **Monitor Key Performance Indicators:** Track clinical outcomes, efficiency improvements, patient satisfaction and cost savings
- ✓ **Feedback Loops:** Gather regular feedback from clinicians to make necessary refinements
- ✓ **AI Safety and Validation:** Regularly validate AI models for clinical accuracy and to avoid hallucinations
- ✓ **Post-deployment Iteration:** Continuously refining AI systems after implementation

This chapter is part of the American College of Cardiology/MedAxiom Care Transformation Initiative, which provides a [comprehensive framework](#) for health systems to effectively integrate community-based care into their delivery models.