wcg™ | CenterWatch 2025 AI Benchmarking Report

From Insight to Impact:

AI Adoption in Clinical Research

What We Did

Survey Methodology

Background & Learning Goals

Situation

AI is rapidly reshaping the clinical trial landscape, with organizations across the research ecosystem recognizing its potential to accelerate timelines, improve data quality, and reduce costs.

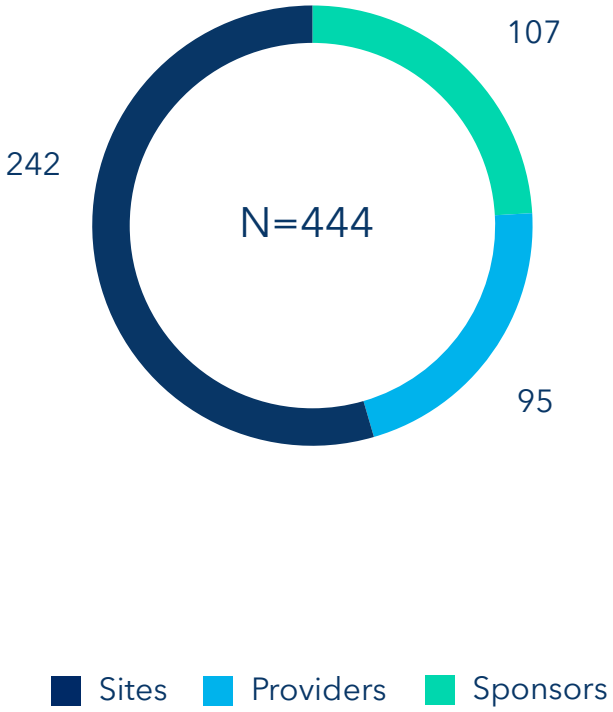
Our goal was to capture the current state of AI integration and understand how organizations are adopting and leveraging AI to transform trial operations, improve efficiency, and overcome longstanding barriers.

Objectives

- Understand the current state of AI adoption across the clinical trial landscape.
- Identify key drivers and barriers influencing AI implementation in clinical trial operations.
- Support the industry's transformation by providing actionable insights that guide AI adoption and foster innovation in clinical trials.

Research Overview

Sample



Approach

10-minute online survey, fielded in September and October 2025.

Key topics included:

- AI Adoption & Application Areas.
- Drivers & Barriers to AI Adoption.
- Training, Education & Organizational Readiness.

Recruitment

Survey recruitment channels included:

- WCG sponsor and site networks.
- Social networks (e.g., LinkedIn).

Sample Composition

	Sponsors		Providers		Sites	
TYPE	**Top 20 Biopharma**	**27%**	**Consulting Company**	**24%**	**Academic Medical Center**	**39%**
	Top 50/Mid-sized Biopharma	14%	**Academic Research Organization**	**15%**	**Independent Research Site**	**18%**
	Other Mid-sized Biopharma	8%	Non-CRO Clinical Service Provider	13%	Physician Practice	14%
	Small/Specialty Biopharma	12%	**Small/Specialty CRO**	**16%**	Community Hospital	14%
	Pre-Revenue Biopharma	**18%**	Mid-sized CRO	11%	Integrated HC Delivery System	9%
	Medical Device Company	**18%**	Large CRO	6%	Site Network	5%
	Other Pharma/Sponsor	3%	Other	15%	Other	1%
ROLE/FUNCTION	**Clinical Development/Ops**	**58%**	**Clinical Development/Ops**	**32%**	**CRC**	**25%**
	Quality Assurance/Control	**14%**	**Executive Management**	**12%**	**Site Leadership/Owner**	**19%**
	Executive Management	6%	Medical/Scientific	11%	**Research Admin Staff**	**17%**
	Clinical DM/Biostats	6%	Regulatory Affairs	10%	Regulatory/Compliance	10%
	Medical Affairs	6%	Quality Assurance/Control	9%	Physician/PI	10%
	Regulatory Affairs	4%	Data Management	9%	CRN	6%
	Alliance Management	3%	Business Development	5%	IRB	5%
	Other	3%	Other	12%	Other	8%

Sample: Sponsors=107, Providers=95, Sites=242

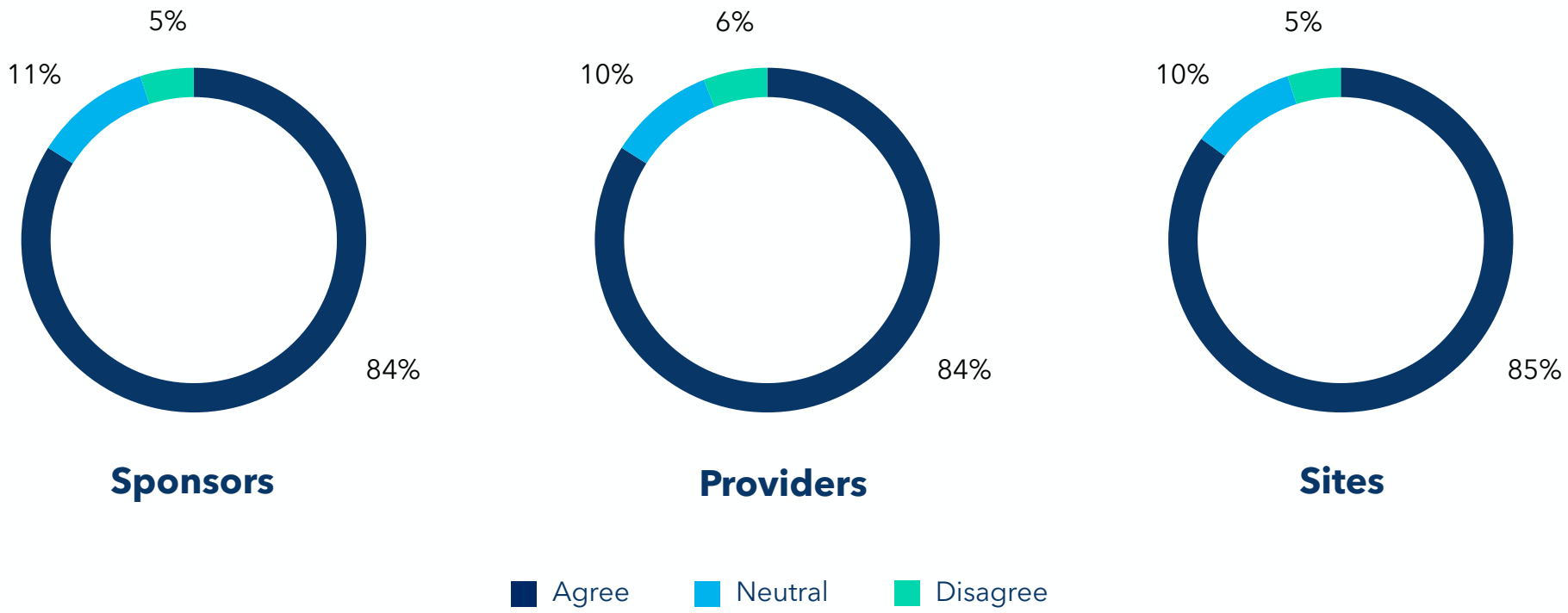
What We Learned

Perceptions and Implementations of AI in Clinical Trials

The Industry is Well-Aligned on the Anticipated Impact of AI in the Near Future

Sample: Sponsors=106, Providers=94, Sites=239

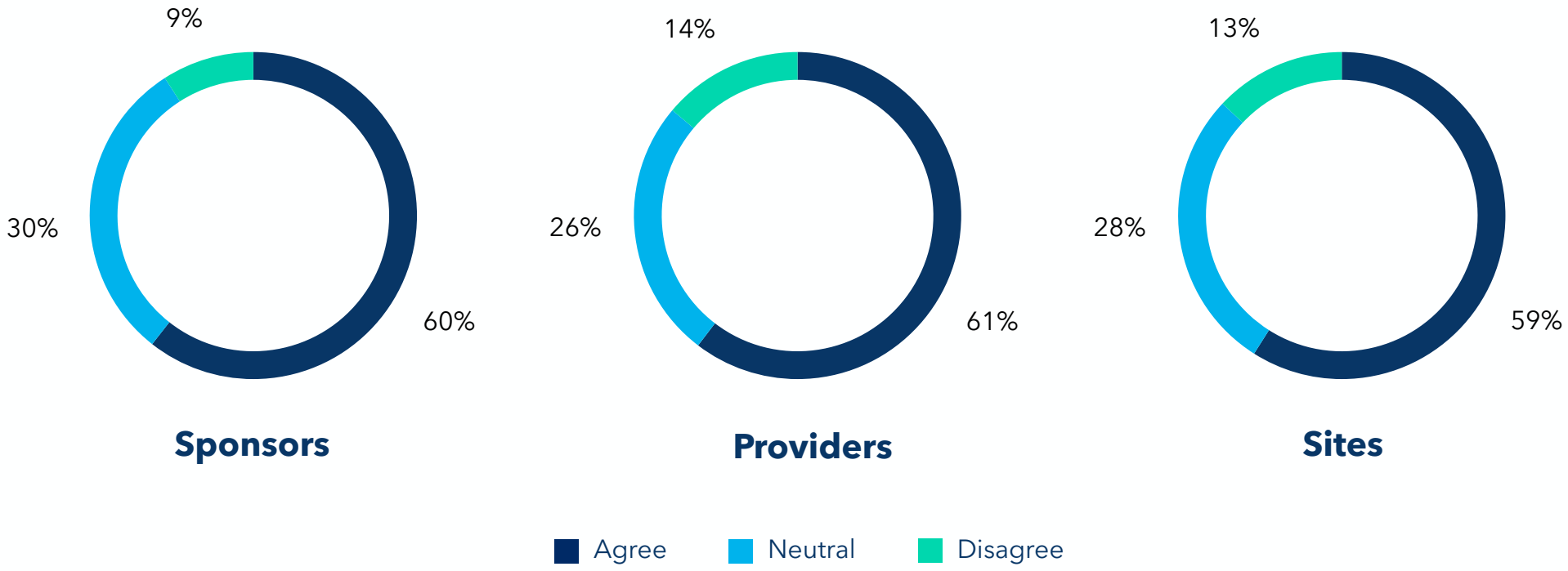
? ***Agreement with…*** **I believe AI will significantly impact our industry in the next 5 years.**



A Majority Feel that AI has the Potential to Offer a Competitive Advantage

Sample: Sponsors=106, Providers=94, Sites=239

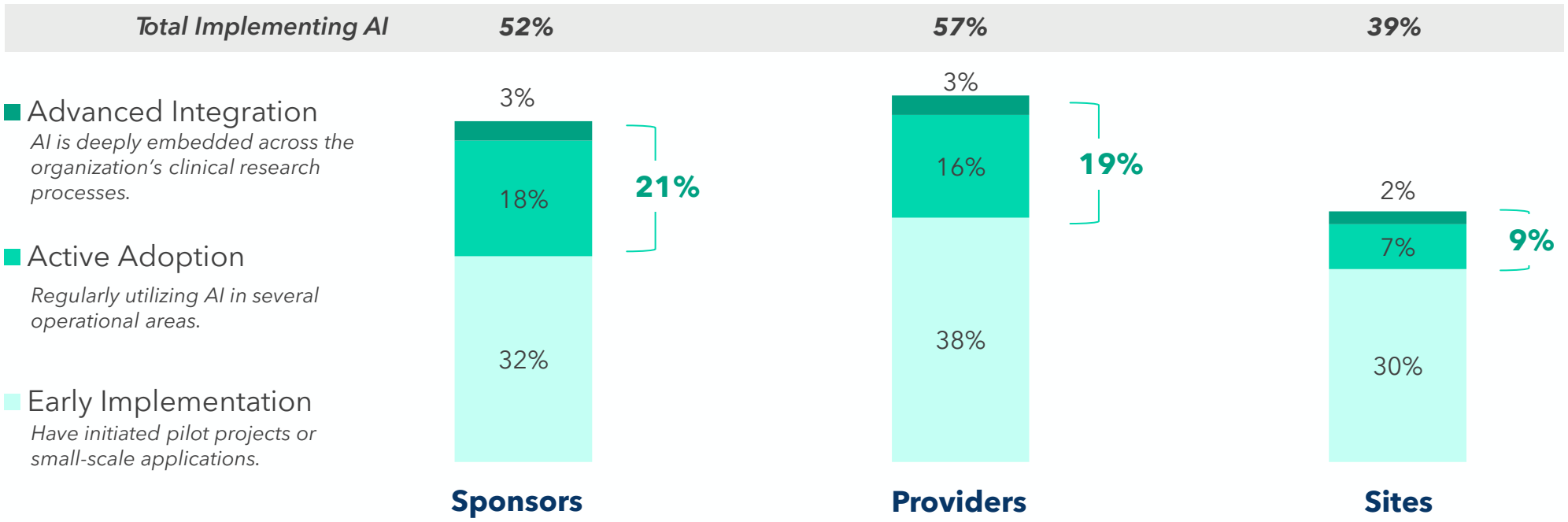
? ***Agreement with…*** **The use of AI means we can gain a competitive advantage.**



Few are Highly Engaged in Implementation Today, Especially Sites, Where Only 9% Indicate AI Adoption

Sample: Sponsors=106, Providers=94, Sites=239

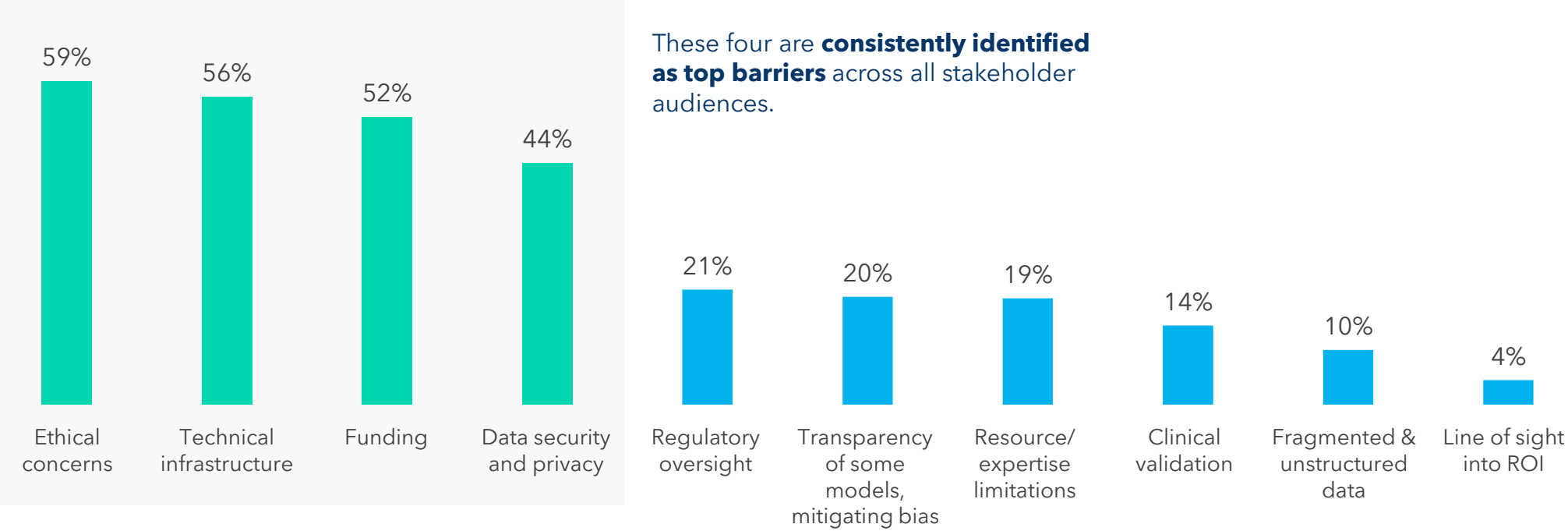
Current State of AI Adoption in Your Organization



Among Those ***Not Yet*** Adopting AI, "Fundamental" Concerns – Ethics, Technology, Funding & Data Security – Emerged as Key Barriers

Sample: Respondents not actively adopting, N=382

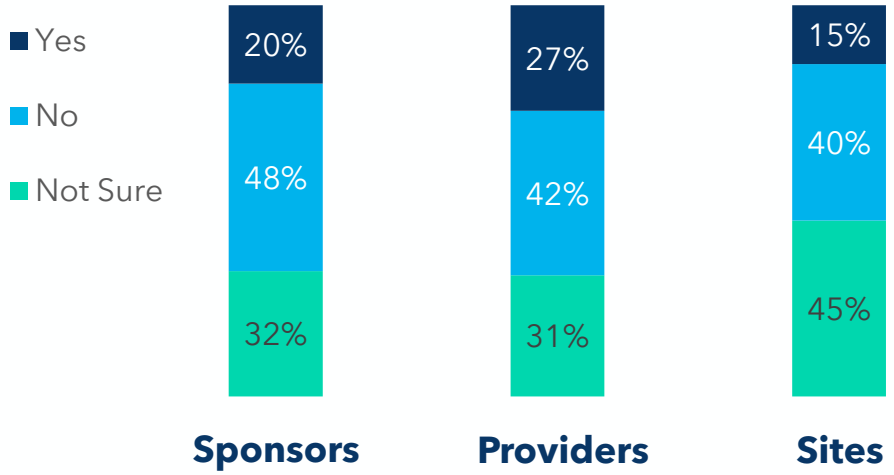
Barriers to AI Adoption in Your Organization
% selecting in top 3 ranking, among those not in active adoption



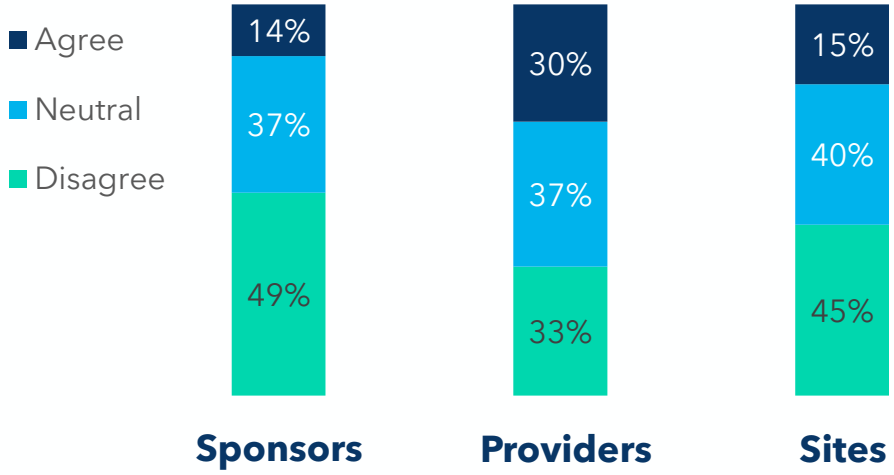
These four are **consistently identified as top barriers** across all stakeholder audiences.

A Lack of Training and Preparation May Also Be Acting as Barriers to Moving Forward with AI Integration in Clinical Trials

Does your organization have adequate training and education to help employees understand the capabilities and limitations of AI?



***Agreement with…*our organization is prepared for the technical challenges of implementing AI.**



Sample: Respondents not actively adopting, Sponsors=85., Providers=77, Sites=220

Key Take-Aways

Perceptions and Implementation of AI in Clinical Trials

- There is a **universal expectation that AI will have significant near-term impact** on the industry and the business of conducting clinical trials, potentially creating opportunity for stakeholders to gain advantage in the **competitive landscape**.

- However, a majority of stakeholders are either **very early in their implementation of AI or may not consider it a priority today** – only about 1 in 5 sponsors and providers are actively adopting AI, and sites even less-so.

- At this early stage, there appear to be **significant barriers related to "fundamental" issues of ethics, technology, funding and data quality** that may prevent or slow the pace at which AI integration comes to fruition in clinical trials.

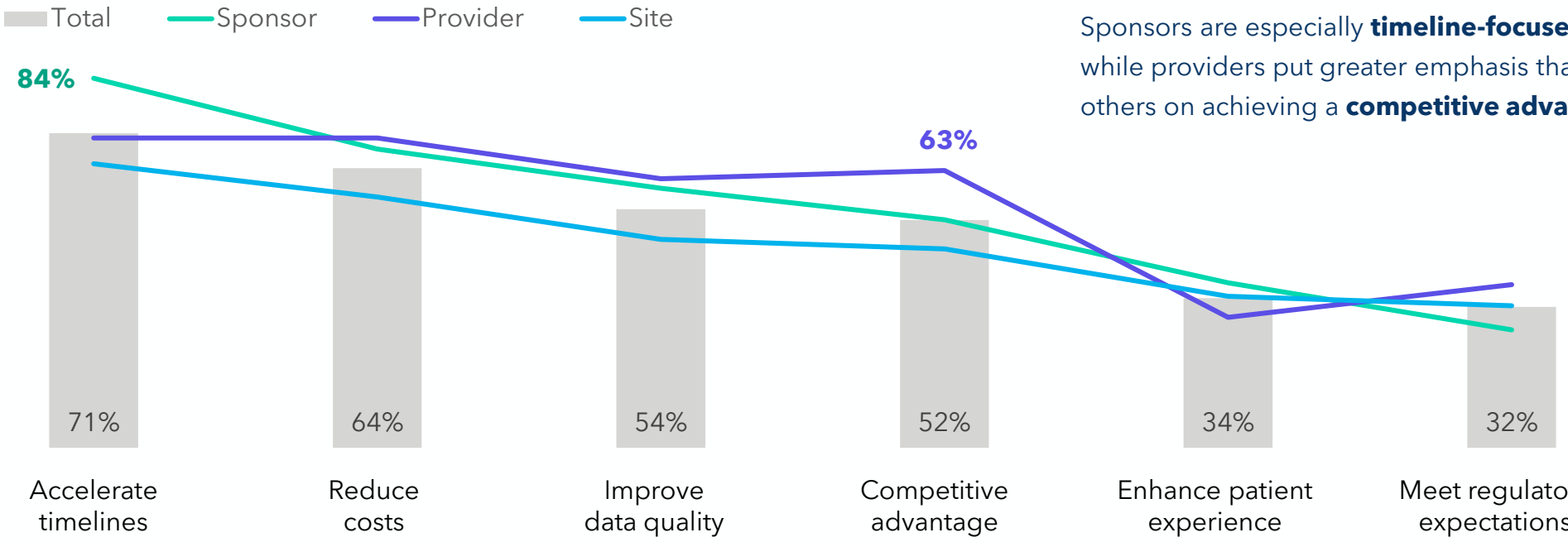
What We Learned

Insights from Early Adopters

Early Adopters of AI are Primarily Driven by Anticipated Efficiencies in Terms of Both Time and Cost

Drivers of AI Implementation: % selecting, among those who have started implementation or adoption.

Sample: Respondents who have started implementation, N=203, Sponsors=56, Providers=54, Sites=93



Sponsors are especially **timeline-focused,** while providers put greater emphasis than others on achieving a **competitive advantage.**

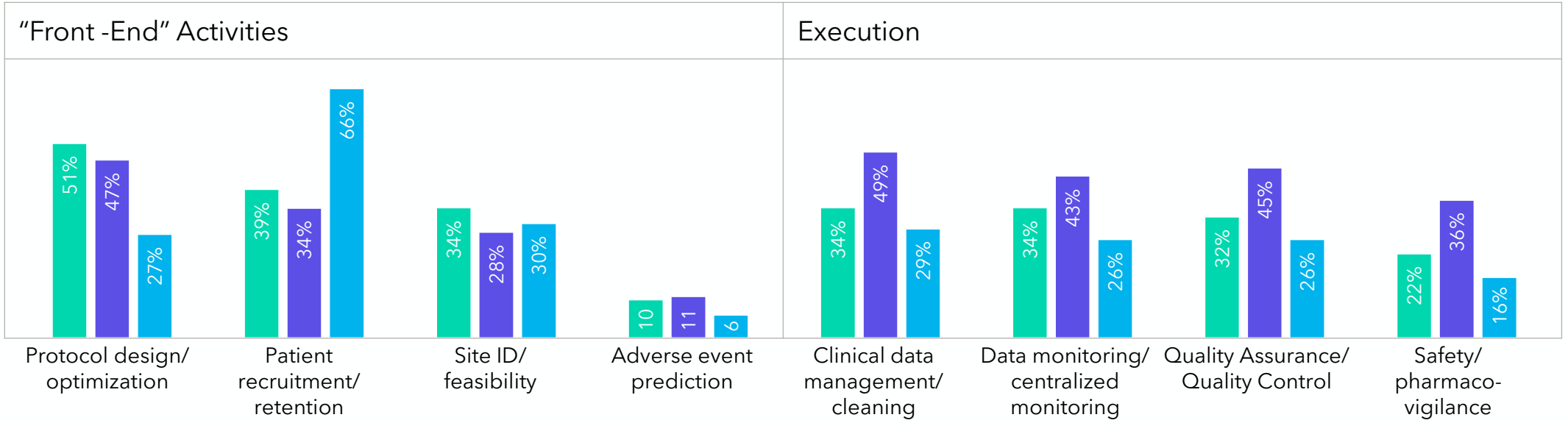
Stakeholder utilization of specific AI elements is varied as are their perceptions of where AI is having the greatest positive impact…

Each Audience is Focused on Different Areas of AI use: Sponsors for Protocol and Start-up, Providers for Data Management, Sites for Participant Engagement

Sample: Respondents who have started implementation, Sponsors=41, Providers=47, Sites=70

Trial aspects in which AI is being implemented
% selecting, among those who have started implementation or adoption.

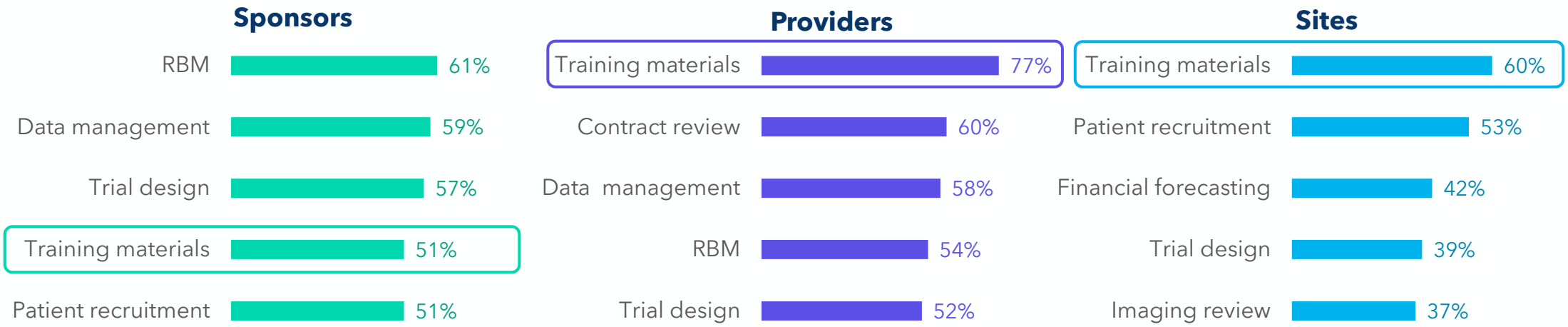
Average # AI Uses	
Sponsor	2.6
Provider	2.9
Site	2.2



Perceptions of Impact also Differ for Stakeholders, Though All Find AI's Use in Developing Training Materials to be a Top Outcome

Sample: Respondents who have started implementation, Sponsors=51, Providers=48, Sites=83

Top 5 Positive Outcomes
% indicating positive outcome, among those who have started implementation



"[AI] increases enrollment by catching missed eligibility."

Key Take-Aways

Insights from Early Adopters

- **Saving time and money are the key drivers of AI implementation;** some recognize the potential to improve data quality and gain a competitive edge. Fewer are thinking about the use of AI as a tool to improve participant experience or achieve regulatory compliance, suggesting that more education may be beneficial in these areas.

- Early adopters within each stakeholder audience have taken **different approaches to integrating AI in clinical trials:**
  - Sponsors: Appear focused on utilizing AI to optimize **protocols and start-up activities.**
  - Providers: Have the widest breadth of AI use today, with emphasis on **data management.**
  - Sites: More singularly focused on using AI to enhance **participant recruitment.**

- While perceptions of AI's impact vary across stakeholders, **all agree on its value in developing training materials.**

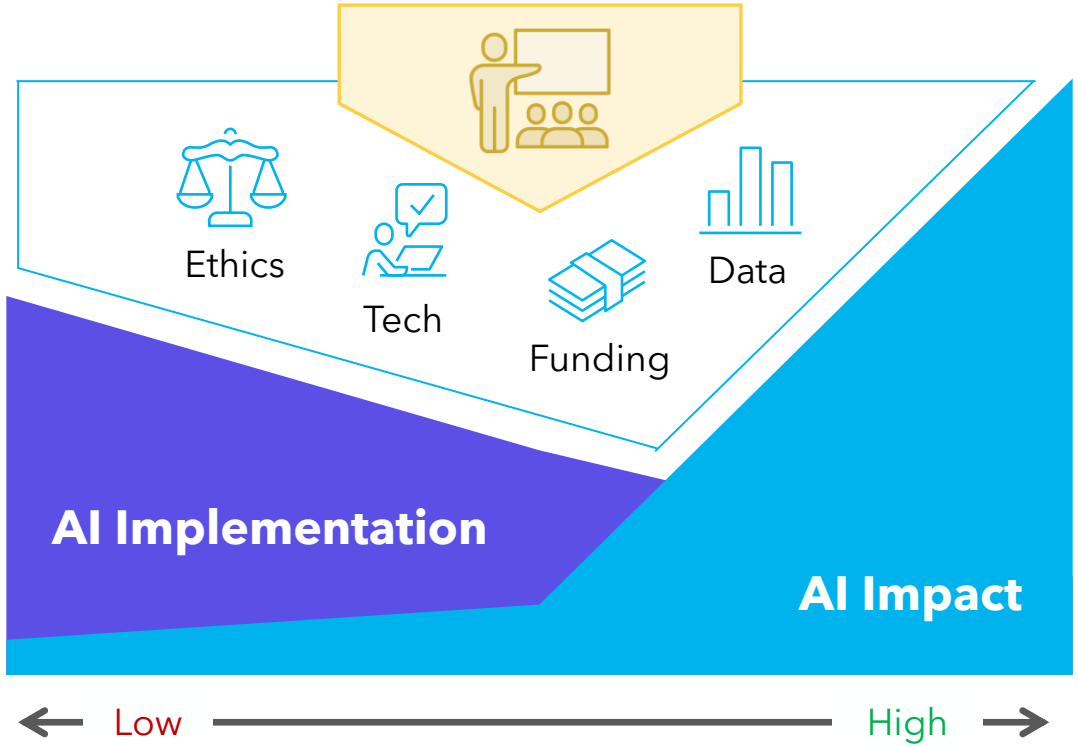
- This variation in top outcomes across stakeholders highlights AI's **multifaceted role in clinical trial optimization.**

What Happens Next

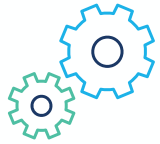
Next Steps to AI Integration

Bridging the AI Gap: Building AI Readiness

- There is a disconnect today between the level of AI implementation and the foreseeable impact it will have on the industry in the near future.
- Filling this "gap" will require education, training, and preparation on hurdles that are most top-of-mind for stakeholders today – ethics, technology funding, and data security.



What Are Considerations for Achieving Successful AI Adoption?



Develop the infrastructure and invest in upgrades or vetted AI platforms.

Prioritize the development of AI champions or centers of excellence.

Optimize data governance/privacy frameworks.

Actively engage with ethics charters or advisory groups.

Nurture regulatory alignment support.

Key Actions

Sponsors and CROs

Speeding up drug development is critical to get therapeutic agents to patients faster. Leveraging AI as a tool can help to **accelerate timelines** and potentially **reduce costs**.

Prioritize what clinical trial activities can benefit most from AI. Implementation in **protocol design** and **study start-up** is a recommended starting point.

Optimal areas for additional **AI development** and integration include **data management and quality**.

Ensure you address potential concerns about technology infrastructure, funding, ethics, and data security.

Key Actions

Providers

Focus on **leveraging AI** for **increased operational efficiency and workflow optimization** (i.e., improved time and cost efficiency).

Emphasize benefits pertaining to **data management** and **quality**.

Recognize the competitive edge gained as a result of AI adoption.

Strengthen your ability to **address technology infrastructure** concerns and **build confidence in ROI** to encourage adoption and engagement.

Key Actions

Sites

Optimize participant engagement and retention by positioning AI as a practical tool for research staff.

Ease site burden as AI can help ease integration and training support.

Identify potential for broader use in **data management**.

Address ethical concerns in order to **build trust** in AI.

Provide support to alleviate concerns about **site burden** and **incremental costs**.

Unlocking Success Through AI-Enablement

Study Planning and Design Activities Can Be Strengthened with WCG ClinSphere®

***Knowing changes everything*. WCG is redefining the clinical trial landscape by equipping sponsors, CROs, and sites with trial intelligence, clarity, and objectivity needed to anticipate challenges, optimize outcomes, and accelerate breakthroughs.**

Protocol design and optimization: Effectively integrate predictive, regulatory, and operational insight into one decision engine that enables (and informs) successful decisions with **WCG ClinSphere® Trial IntelX™**.

Participant recruitment and retention: Simplify and streamline study participant management with **WCG ClinSphere® Total Enrollment**.

Site ID and feasibility: Optimize and simplify your study planning, site identification, and selection processes with **WCG ClinSphere® Total Feasibility**.

Adverse event prediction: AI-powered analytics identify emerging risks and performance patterns across thousands of trials providing early warning before issues surface.

Unlocking Success in AI Adoption

With a Trusted Partner Throughout Your Organization's AI Journey

KEY AREAS OF IMPACT INCLUDE:

- **Ethical considerations:** AI continues to play an increasingly important role in clinical research, including protocol design, consent considerations, patient privacy and confidentiality, and participant recruitment. Deep expertise, guidelines, and tools are available via WCG's IRB, The WCG/MRCT Multi-stakeholder Taskforce focused on Ethics Review of Human Research Involving AI, and the WCG Avoca Quality Consortium.
- **Security & Privacy:** Move forward with confidence knowing that WCG's best-in-class InfoSec team is firmly committed to safeguarding data integrity and security.
- **Training:** Leverage the industry's first comprehensive, end-to-end clinical trial training solution that unites in-person, virtual, hybrid, and on-demand training with engagement tools, enhanced analytics, and expert consulting via WCG Total Training
- **AI Usage at Sites:** Ensure participant safety, data integrity, regulatory compliance, and operational efficiency, with special training for clinical research coordinators.

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