

*“Stay Ahead of the Game:  
Transformation in Clinical Trials  
in the Age of Artificial Intelligence.”*

**ANNUAL  
CLINICAL TRIALS  
SYMPOSIUM**

**November 8<sup>th</sup>, 2024**

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# HOW ARE DIGITAL TECHNOLOGIES INTEGRATED INTO CLINICAL TRIAL PLATFORMS

What is the technology landscape today and how we position our sites to be ready for tomorrow.

SiteCentric   
C T M S

**AVANTY**   
INSTITUTE OF CLINICAL RESEARCH

# ABOUT ME

Contact Info:



- Two decades of technology leadership in the clinical trials space at a US-based multi-specialty site-network
- Lead the development of the only “built by sites, for sites” Clinical Trials Management Platform that includes everything a site/site-network to operate efficiently over the past 17 years
- Masters in Information Technology, Post-Graduate Certification in Health IT, Certified Information Systems Security Professional (CISSP), Lean Six Sigma Black Belt in IT

# DIGITAL TECHNOLOGIES TODAY



eConsent, EDC & eSource



Remote Patient Monitoring (wearables)



Telemedicine



Blockchain, AI and Machine Learning Tools



ePRO (Patient-Recorded Outcomes) and eCOA  
(Clinical Outcomes Assessments)



Regulatory Compliance Tools



CTMS, Data Analytics and Visualization

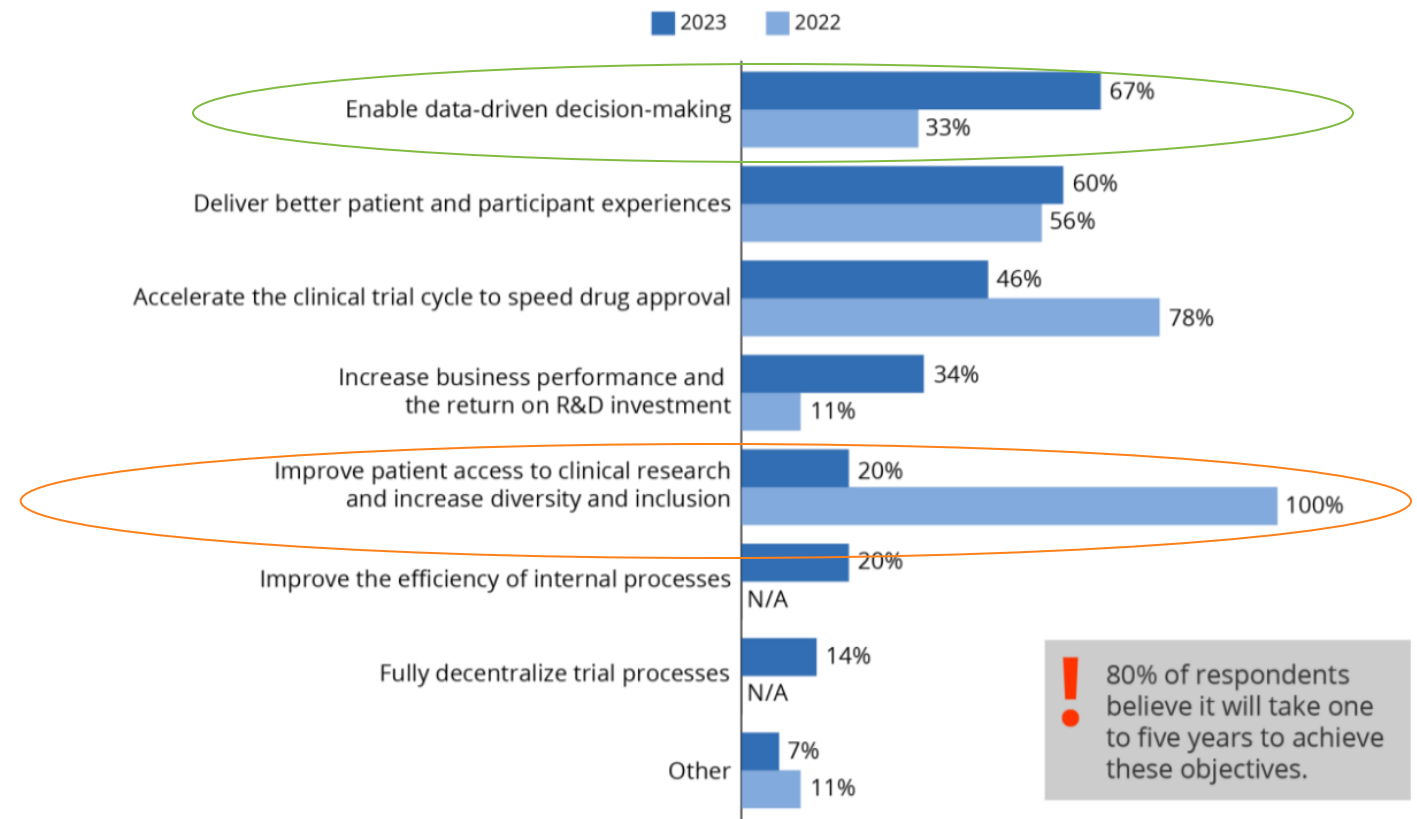
# TECH LANDSCAPE

Data Safety Management	Sponsor Operations	Site Operations & Management	Participant Management	Data Collection
Clinical Data Analysis	Study Planning & Protocol Design	eReg/eISF	Participant Recruitment	EDC
Adjudication	eTMF	eConsent	Participant Engagement	ePRO
Pharmacovigilance	Sponsor CTMS	Site CTMS	Participant Payment	eCOA
	Randomization & Trial Supply Management	eSource	Telemedicine	Electronic Health Records
	Training	Study Organizer Tools		Imaging
	Risk-based QA	Inventory Management		Wearables
	Regulatory Information Mgmt	Remote Monitoring		
	Study Budget Mgmt	Site Planning, Feasibility & Selection		
		Site QA		

# DIGITAL VISION AND STRATEGY DRIVERS

April 23, 2024 **The State Of Digital Excellence In The Global Pharmaceutical Industry, 2023: Clinical Operations** by DT Consulting

“Which of the following are main objectives of or success factors behind your digital vision and strategy?”



Base: 15 (2023) and 9 (2022) companies

# VALUE PROMISE OF TECH

Why are technologies begin integrated into clinical trial at such a rapid pace?

- Timely data collection
- Improved data accuracy
- Improved efficiency in data collection
- Patient Voice & Satisfaction Improvements
- Patient Safety Improvements
- Enable automation and use of Artificial Intelligence

# TECHNOLOGY CHALLENGES

- Lack of standards or standards adoption
- Lack of integration
- Training needs
- Availability of technology – delayed start of trial or enrollment
- Usability by patients and sites alike
- Storage of devices at sites
- Communication challenges (data)
- Lack of site operation knowledge



# AI ENABLERS

- **DATA; lots and lots of data.**
- **Every company is a data company.** The challenge is how we capture and store it.

Machine learning algorithms are excellent at identifying trends and trend drivers. To enable these large datasets capturing trends reliably without data holes is crucial for training these models.

Any technology that you use today should automatically capture trend data in a machine-readable way, over time and consistently.

# AI USE TODAY IN CLINICAL TRIALS

- Patient Recruiting (Automated chart review and protocol match)
  - Trial.ly
  - Aspen Insights
- Protocol Deviation Detection
  - Quri.AI
- Business Intelligence (Business Development)
  - NewsAPI.AI
  - ZoomInfo