WEBINAR

Managing Risk and Oversight in Decentralized Clinical Trials Using Industry Standards

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Dennis Salotti, MS, MBA, CCRA

Chief Operating Officer

The Avoca Group

Dennis Salotti is COO of The Avoca Group and lead for the Diligent® Qualification Platform, the clinical research industry's first centralized platform for clinical service provider qualification.

With more than 18 years in the pharmaceutical industry as a sponsor, provider and consultant, Dennis has experience that spans preclinical research, clinical operations, data management, quality assurance, eClinical, business operations and strategic management.

Dennis is an Adjunct faculty instructor for Drexel University College of Medicine's graduate program in Clinical Research Organization Management where he teaches courses in Clinical Outsourcing and eClinical technologies.

His educational credentials include an MS in Clinical Research Organization Management from Drexel University, an MBA in Technology Management from the New Jersey Institute of Technology, and a BS in Biology from Sacred Heart University.

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Webinar Objectives

- Describe the state of the industry for familiarity planning and use of the new and emerging technologies enabling decentralized trials.
- Discuss industry perception of challenges, opportunities, and perceived impact of emerging technologies.
- Gain insights into future efforts to utilize precompetitive collaboratives to increase adoption of new and emerging approaches to clinical trials.
- Recognize efficient approaches to identify and assess qualification potential of decentralized solution providers.

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State of the Industry: Emerging Technology and Novel Data Sources

Perspectives on Innovation

As an industry, we have created a paradox: increased investment and experimentation with a concurrent regression in adoption at scale.

+12%

The **increase** in sponsors indicating their company **is willing to try and fail in the pursuit of innovative approaches** to clinical development (as compared to Avoca's 2015 research results)

+20%

The **increase** in sponsors indicating their company **invests an appropriate amount of money and resources in innovative approaches** to clinical development (as compared to Avoca's 2015 research results)

-6%

The **decrease** in sponsors indicating their company **recognizes and adopts innovative approaches** to clinical development that are shown to be successful (as compared to Avoca's 2015 research results)

N: 2015 Sponsor=107, Provider=64; 2018 Sponsor=128, Provider=158-159

Q: To what extent do you view your organization as innovative with respect to clinical development? Please indicate the extent to which you agree or disagree with each of the following statements using a scale of 1 to 5, with 1 being 'Strongly Disagree' and 5 being 'Strongly Agree'

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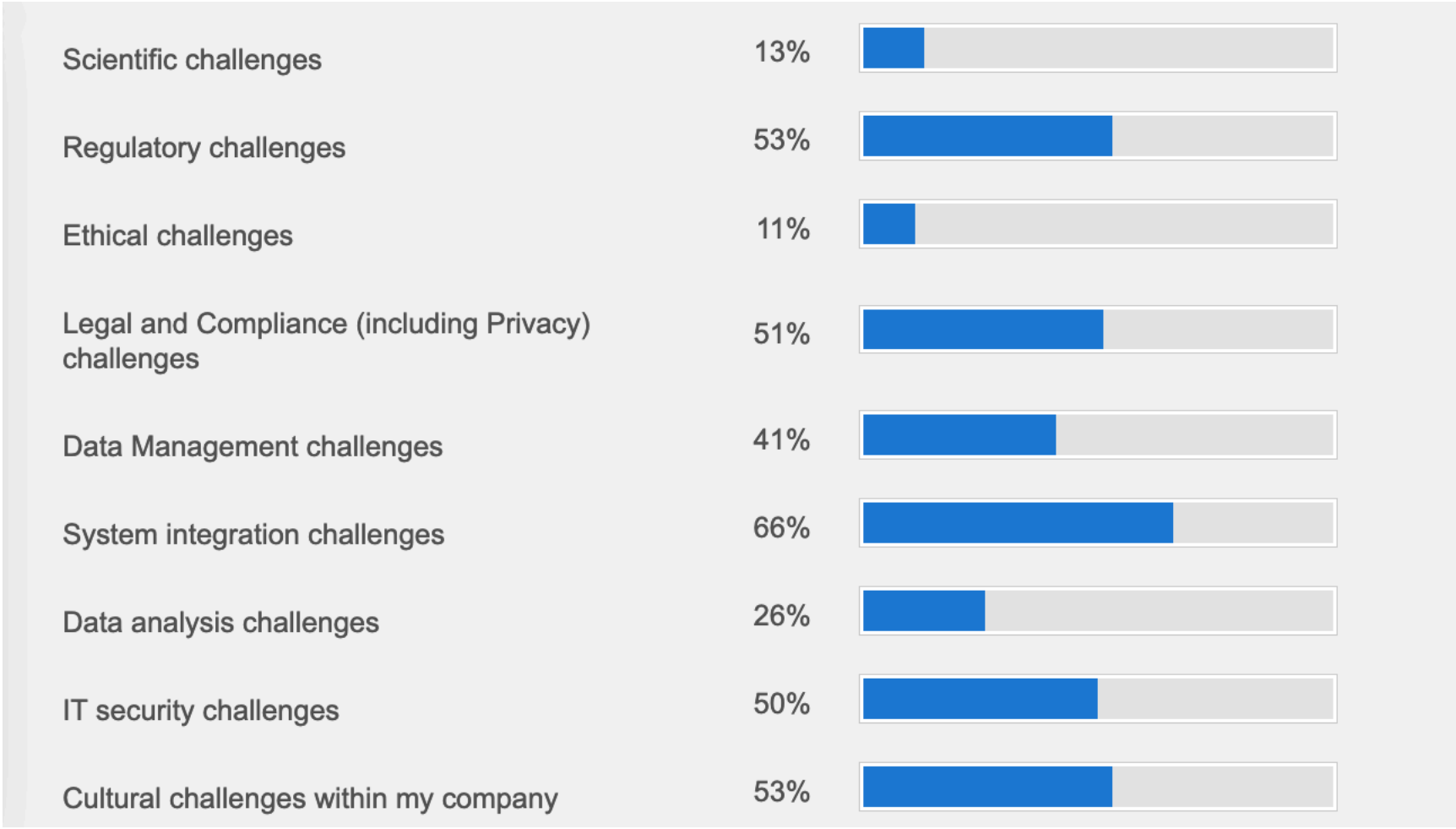
Polling

Thinking about the challenges at your company in adopting novel data sources, technologies, and approaches – which challenges do you encounter? *(Select all that apply)*



Challenges to Adoption of New Technologies

On an *unaided* basis, Sponsors and Providers shared similar feelings regarding obstacles to technology adoption, namely, cost considerations, managing internal shift in mind-set/cultural change, integration/implementation issues, and lack of familiarity.

Primary Challenges to Utilizing New Technologies

Cost

- "The cost of bringing those technologies in-house including validation, training, etc." [Provider]
- "Cost and integration with the systems of a small company." [Sponsor]

Acceptance/Cultural Change

- "Overcoming resistance to change, convincing colleagues to take the time to learn/understand new technologies." [Provider]
- "Sponsor resistance to change and the risks involved in changing process." [Provider]

Integration/Implementation

- "Harmonization of processes & data tools across multiple players in clinical research." [Sponsor]
- "Integration and interpretation of multiple data/information streams. Regulatory hurdles, i.e., EU challenges to e-consent." [Provider]

Lack of Familiarity/Risk Perception

- "Familiarity, early adoption (open mindedness), credibility, courage to change." [Provider]
- "Lack of overall knowledge and experience by decision makers." [Sponsor]

Q. Still thinking about your current company, what would you say is the primary challenge to using novel data sources and technologies more effectively in clinical trials? OPEN END

Challenges to Adoption of New Technologies

When asked directly to rate challenges, similar ideas rose to the top as being 'most challenging.'

Top 4 Challenges to Using Novel Data Sources/Technology

Based on % top 3 box on 10-pt. scale

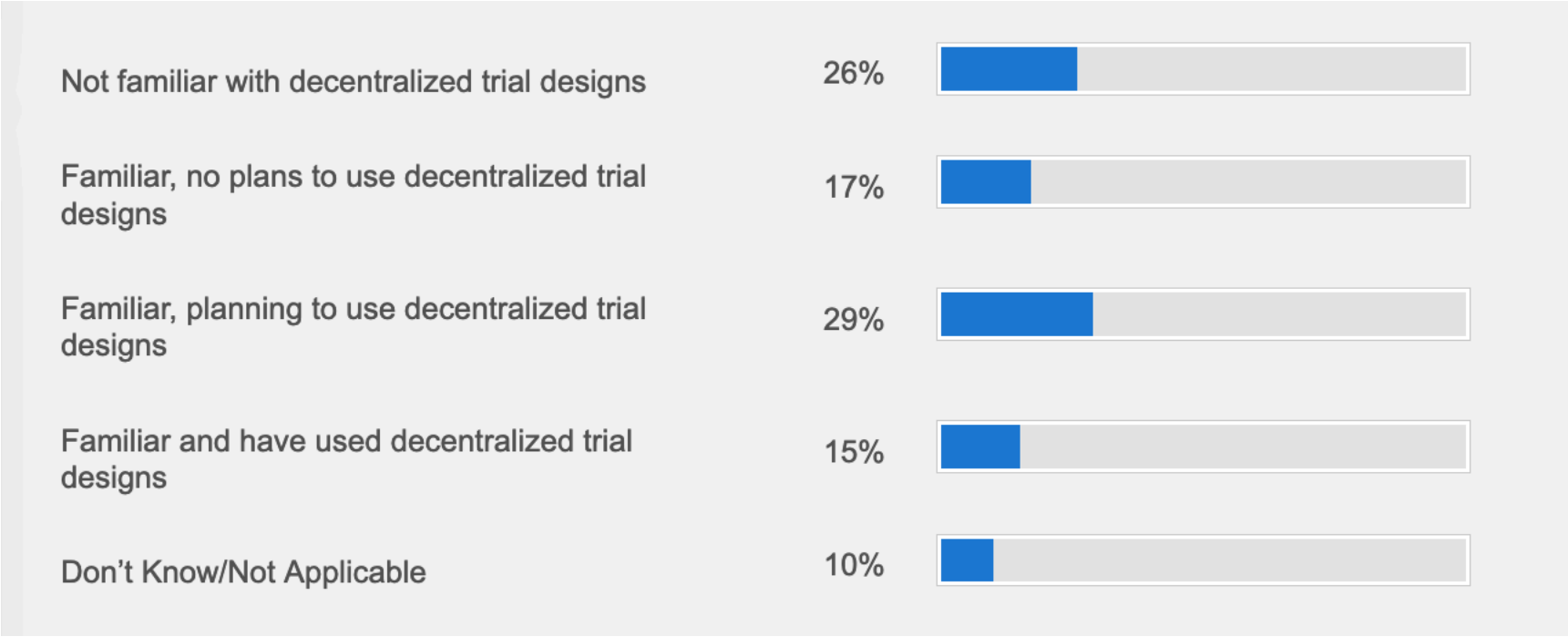
	Sponsors	Providers
1	System Integration	System Integration
2	Legal/Compliance (including Privacy)	Legal/Compliance (including Privacy)
3	Regulatory	Cultural Challenges with Sponsor Company
4	Cultural	Regulatory

N: Sponsor=121-125, Provider=150-159

Q: Still thinking about challenges to using novel data sources and technologies to improve the execution of and/or outcomes from clinical trials, please rate the following challenge areas on a scale of 1-10, with 1 being 'Not at all challenging' and 10 being 'Extremely challenging'.

Polling

What is your current experience with decentralized trials?



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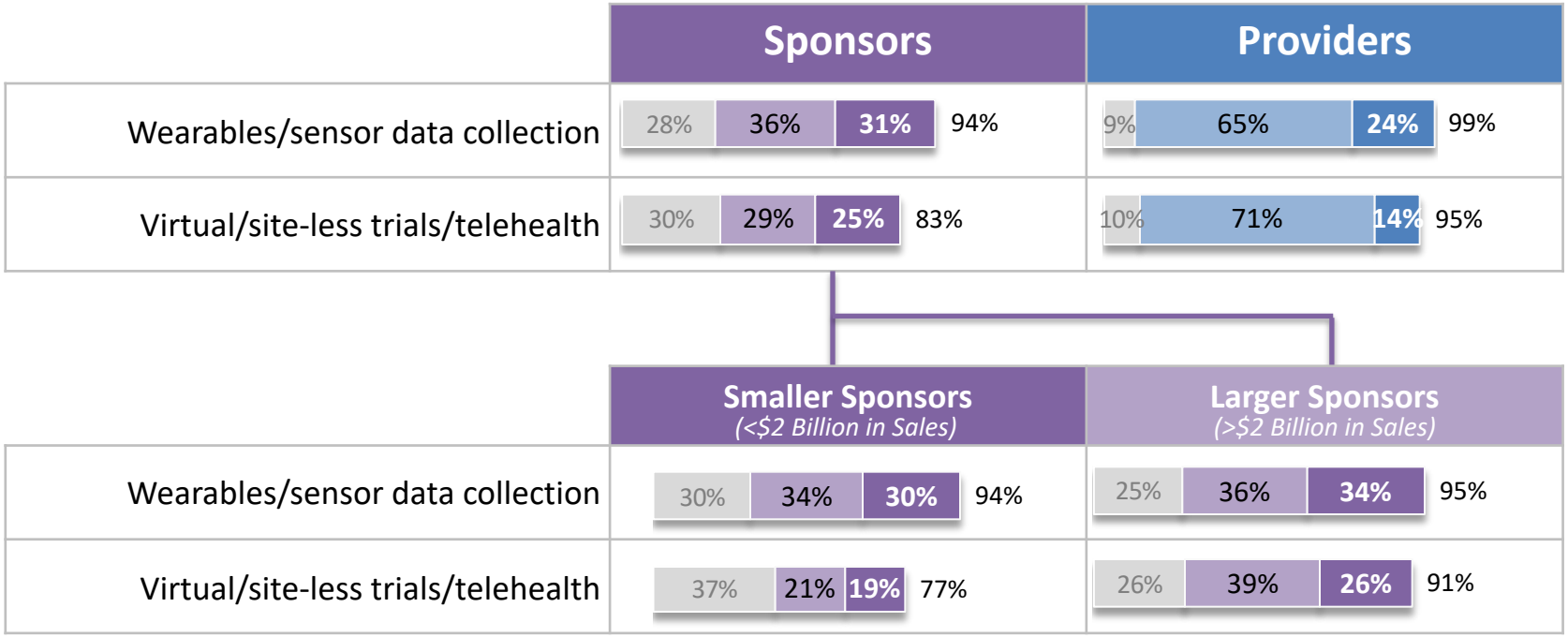
Familiarity & Use of Novel Data & Technology

Today, utilization of wearables and virtual trials is low, but show strong intent to use among Providers, who may be anticipating industry trends. Larger Sponsors appear to have greater utilization potential for virtual trials than do smaller.

Wearables and Virtual Trials

% familiar and no plan to use/% familiar and plan to use/% familiar & have used/total % familiar



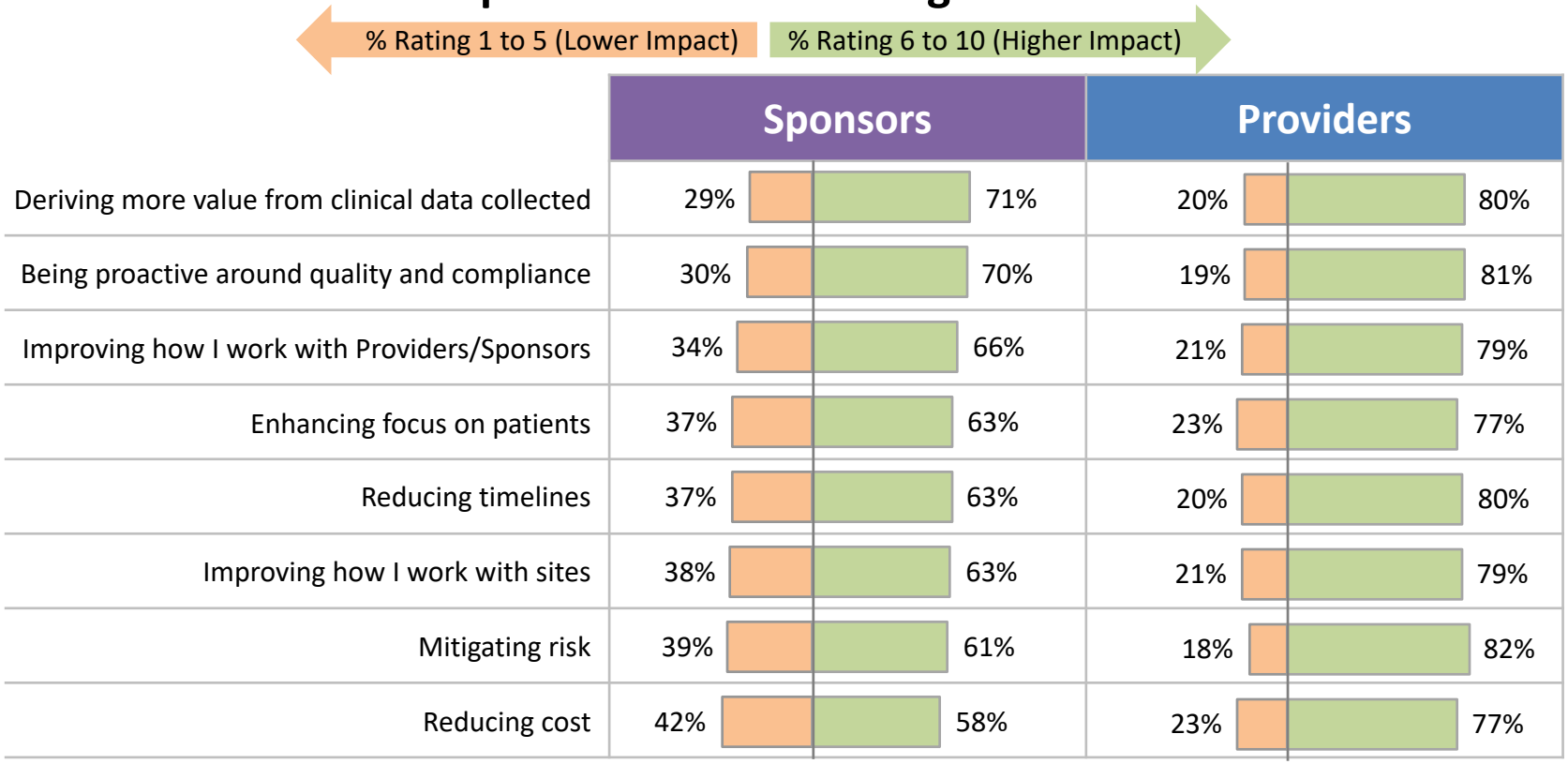
N: Sponsor=115-121, Provider=155-156; Smaller Sponsor=43-47, Larger Sponsor=57-59

Q: Now thinking specifically about your current company, please rate your familiarity with the following data-focused clinical trial tools and services.

Perspectives on Innovation

Providers, who generally report greater utilization of innovation, are also more likely to indicate that innovation has had an impact on performance/outcomes. The weakest impact is on cost, which was reported to be one of the key challenges of technological implementation.

Impact of New Technologies on…



N: Sponsor=112-115, Provider=148-152

Q: Thinking about the use of new data sources and technologies at your company, how impactful, if at all, have these been on achieving the following goals? Please use a 1-10 scale with 1 being "Not at All Impactful" and 10 being "Extremely Impactful."

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Precompetitive Collaboratives as a Vehicle for Industry Transformation

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We are not beautiful and unique snowflakes.

Platforms for collaboration are the modern vehicle for progress

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Collaboratives Enabling Aviation

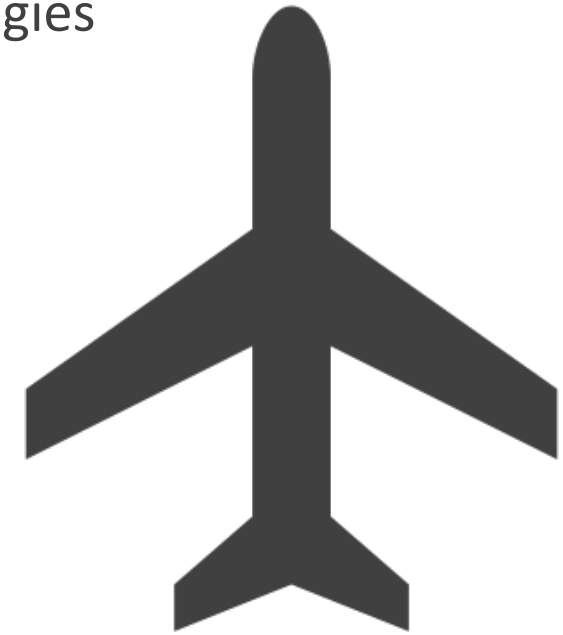
Customer Experience

Disruptive Technologies

Highly Regulated

Rising Costs

Safety is Essential



ATAG AIR TRANSPORT ACTION GROUP

SITA

STAR ALLIANCE™

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Collaboratives Enabling Clinical Trials

Customer Experience

Disruptive Technologies

Highly Regulated

Rising Costs

Safety is a Essential

cdisc

CTTI

DiME DIGITAL MEDICINE SOCIETY

TransCelerate BIOPHARMA INC.

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Avoca Quality Consortium® (AQC)

100+ Member Companies: Sponsors, CROs, Clinical Service Providers and other organizations engaged in clinical trial execution.

Avoca Research: Quantitative and qualitative data from across the industry on key topic areas.

Leading Practices: Access to 450+ guidelines, tools, approaches, standards, and templates focused on proactive quality and risk management.

Collaboration: Leadership Advisory Boards, Annual Quality Summit, Working Sessions, Regional Networking Events, Educational Webinars, and Online Community, *Aha!*

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Current AQC® Members

as of 10/16/2019

Industry Challenge Today

96% of ICH E6 (R2)-amended items pertain to **quality oversight**.

Regulatory and compliance challenges are among the **top-ranked barriers** for Sponsors considering **emerging clinical trial data sources and technologies**.*

Avoca will define the pathway to regulatory compliance by creating a "fit-for-purpose" framework of tools and practices for using new technologies, novel data sources, and non-traditional approaches in clinical trial design, execution, and oversight.

This is in keeping with the Avoca mission to serve as a powerful catalyst for industry growth, success, and change.

*The 2018 Avoca Industry Report: Perspectives on Clinical Innovation & Technology

Creating Standards and Leading Practices for Digital Technologies and Decentralized Clinical Trials

In 2019, the AQC is embarking on a multi-year initiative to create standards and leading practices for digital technologies and decentralized trials that are aligned with international regulations and guidelines. Our current vision is as follows:

2019

- Standards for qualification of providers and enabling technology working in remote, digital, and decentralized trials.

2020

- Continuation of qualification standards and tools in new areas; creating a fit-for-purpose quality and risk management framework; development of leading practices.

2021

- Continuation of the qualification, QMS, and risk work plus "enablement" workstreams: running of pilots and tracking outcomes.

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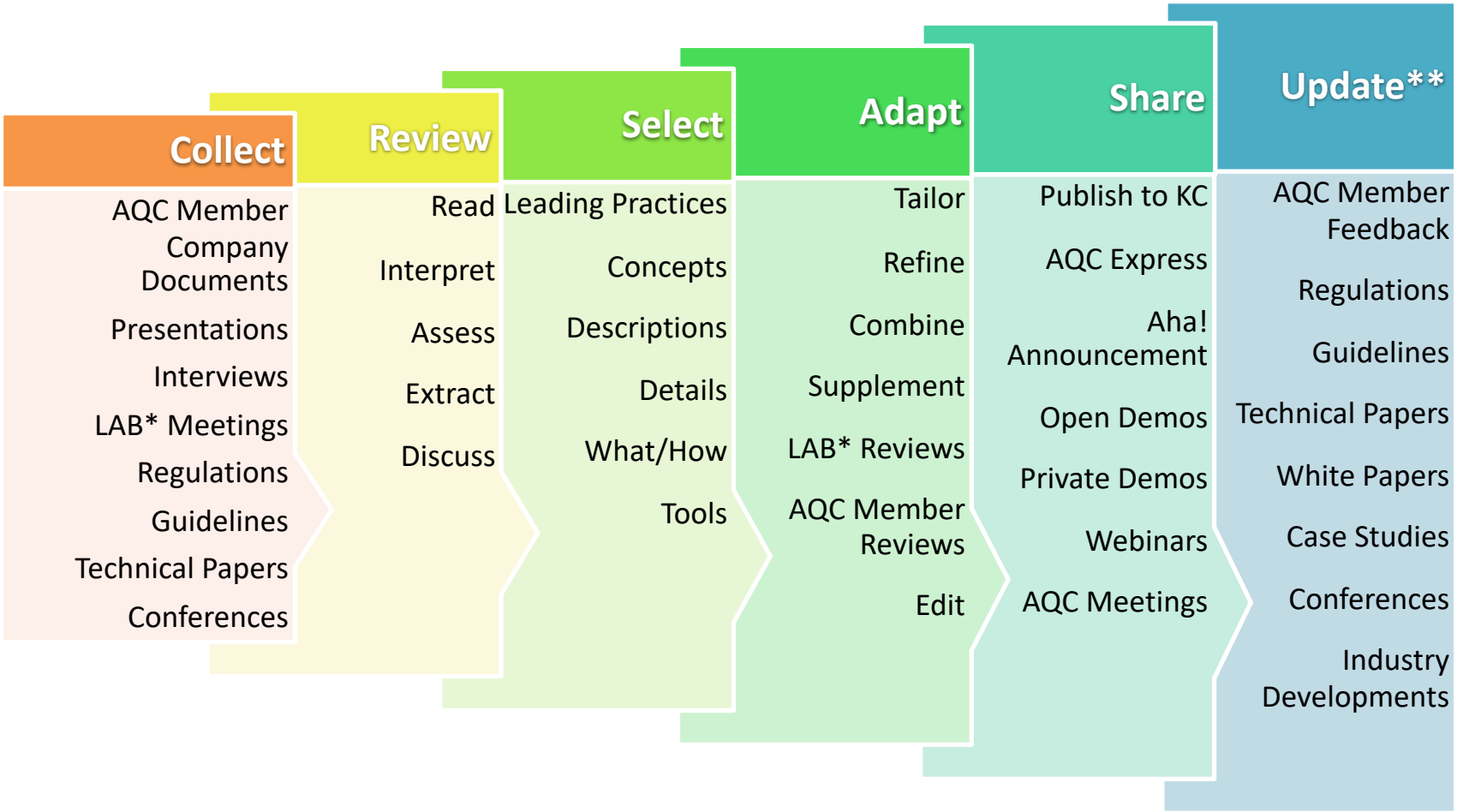
Provider Qualification Initiative: The Vision

Transformation in the way the industry qualifies their clinical technical and functional service providers to address current dysfunction.

- **Enhanced regulatory compliance** via rigorous standards, tools, and processes
- **Reduced costs** for sponsors, CROs, and technical providers
- **Shortened timeframes** for onboarding clinical service providers
- **Greater efficiency** through sharing of information
- **Reduced risk** in the conduct of clinical trials
  - Decision-making based on a thorough approach, detailed information, and comprehensive standards and tools

Development & Sharing of AQC Leading Practices



*LAB= AQC Leadership Advisory Board

** Change Control Process; Monthly Meetings

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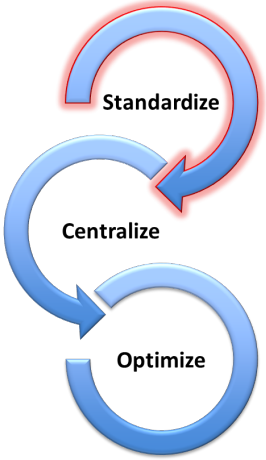
AQC Provider Qualification Program

Standardization: 13 standardized Provider Qualification Packages*

Core Requirements
2014-2015



Technical Services
2015-2017

- Central Laboratories
- IxRS Services
- Central ECG Services
- Medical Imaging Services
- Biomarker Laboratories
- Bioanalytical Laboratories
- Clinical Outcome Assessment Providers

Functional Services
2018

- CRO- Clinical Monitoring
- CRO- Data Management
- CRO- Biostatistics
- CRO- Medical Writing
- Phase I CRU

eClinical 2019

- **Wearables/Sensors**: Actigraphy
- **Applying eHealth Records**: Patient Recruitment/Feasibility
- **Digital Technologies**: eReg Binders/eISF, eConsent
- **Virtual/Decentralized Trials**: Mobile HCP Visits

*Each includes a set of Industry Standards, RFI template, Score Card, and Visit Check List

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Current Status of 2019 Deliverables

Doc ID	Standards	Doc Status
PQUAL 14	eRegulatory Binders- eISF Standards	QC Review
PQUAL 15	eInformed Consent Standards	Complete
PQUAL 15a	eInformed Consent RFI Template	In Development
PQUAL 16	Mobile HCP Visits Standards	Complete
PQUAL 16a	Mobile HCP Visits RFI Template	Development Near Complete
PQUAL 17	eHealth Records- Patient Rec/ Feasibility Standards	Complete
PQUAL 17a	eHealth Records for Patient Recruitment/Feasibility RFI Template	QC Review
PQUAL 17b	eHealth Records for Patient Recruitment/Feasibility Score Card	In Development
PQUAL 17b	eHealth Records for Patient Recruitment/Feasibility Visit Check List	In Development
PQUAL 20	Actigraphy Sensor Device Standards	In AQC Member Peer Review

Standards Example: eReg Binder/eISF

Avoca Quality Consortium®: Qualification of Clinical Providers
Electronic Regulatory Binder/eISF Standards

#	Brief Standard Identifier	Description of Industry Standard	Regulation/ Guidance/ Source	Comments
		assurance that the investigator/institution can fulfil their responsibility.		
ERD 2.0	Document Management – Binder Preservation	The system has binder and folder structures which are preserved upon study archival. The system has the ability to delete and destroy old, outdated copies.	US FDA 21 CFR Part 11.10 Sec. C[x]; ICH E6(R2) Section 4.9.5	
ERD 3.0	Document Management – Task Management	The system provides tasks and task management allowing monitors, study managers, research coordinators, and compliance teams to communicate within a tracked/auditable environment. Tasks can be assigned to one or multiple team members around specific documents or as general action items. Details on the steps required and a completion date can be provided. The assigner and assignees can communicate about task status within the task manager to eliminate email back-and-forth, and status reports can be run under the control of the investigator.	ICH E6(R2) Section 5.18.6 US FDA 21 CFR Part 11.10 Sec. I EMA TMF Guidance	
ERD 4.0	Document Management – Binder Collaboration	The system fosters seamless collaboration across one or more binders, with specific access granted to features within binders based on roles.	ICH E6(R2) Sections 5.5.7 and 5.23.5	
ERD 5.0	Document Management – Linked Documents	The system has documents which can be stored and managed in one central location, are linked to multiple studies at one time for instant access and are automatically updated across studies and binders. Any updates or modifications to the central document automatically update all linked documents.	ICH E6(R2) Sections 5.18.3, 4.9.3, 5.5.3, 5.5.4	
ERD 6.0	Document	The eISF must remain under sole control of the Investigator. A	EMA TMF	

Progress Through Industry Collaboration

34 Advisory Board Members representing 25 AQC Member Companies

THANK YOU, ADVISORY BOARD MEMBERS!

A BIG THANK YOU TO INDUSTRY PARTNERS FOR PEER REVIEWS!!

clinithink · Complion · Consent Solutions (patient education | informed consent) · Florence HEALTHCARE · FORTE · GlobalCare Clinical Trials · MEDABLE · medpoint digital · Symphony Clinical Research (Orchestrating Trials in Motion℠) · Syneos Health · TriNetX · THREAD™

Thank you to the Avoca Team who have worked so diligently on this initiative:

Janis Hall
Lead

Denise Calaprice
SME

Marnie Kanarek
SME

Gina DiCindio
PM

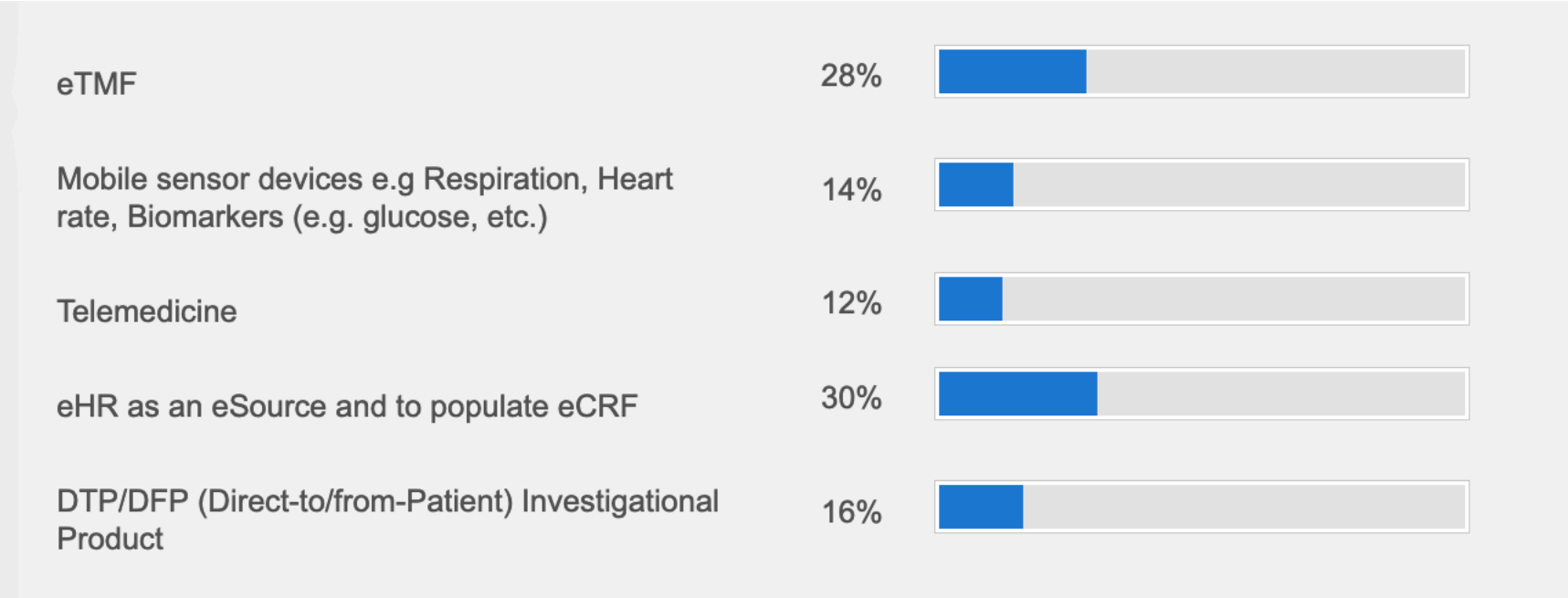
Potential Options for 2020 Deliverables

PQUAL Standards and Tools

- **eTMF**
- **Mobile sensor devices**
  - Respiration
  - Heart rate
  - Biomarkers (e.g., glucose, etc.)
- **Telemedicine**
- **eHR as an eSource** and to populate eCRF
- **DTP/DFP (Direct-to/from-Patient) Investigational Product**

Polling

Which of the following would industry standards be of MOST value to your company?



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Operationalizing Standards

Case Example:

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Qualification Platform

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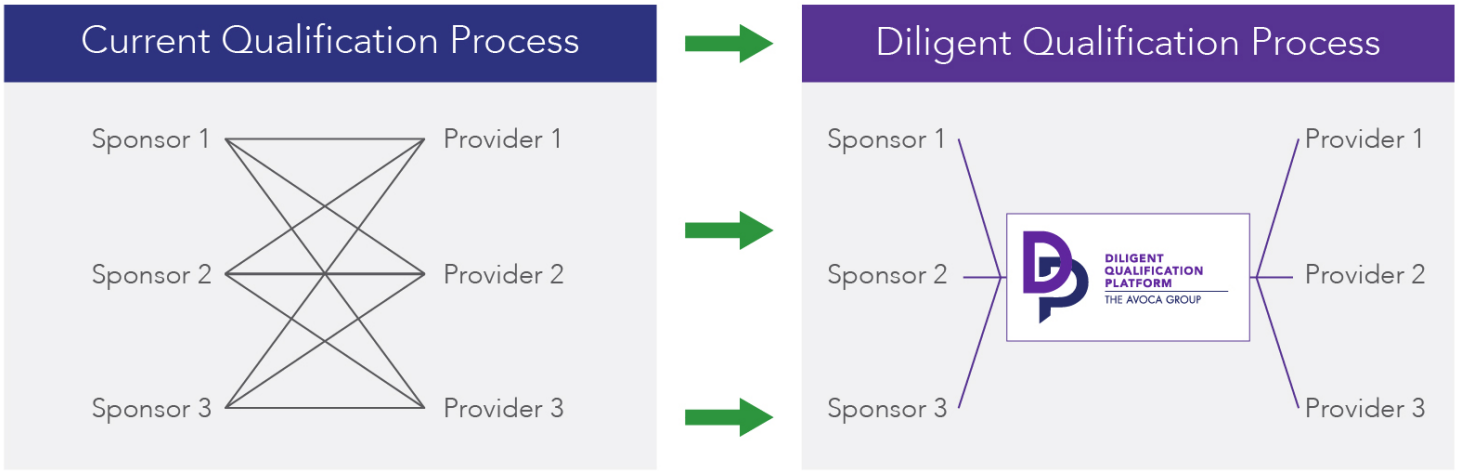
Diligent® Qualification Platform

Scalable Technology and Innovative, Cloud-based Platform for Centralizing Provider Qualification, Aligned with Regulatory Requirements



Mitigate risk and **ensure compliance** with regulations.

Introduce a more **cost, time, and resource efficient** model.

Delivers **shorter timeframes** to onboard new providers and capabilities.

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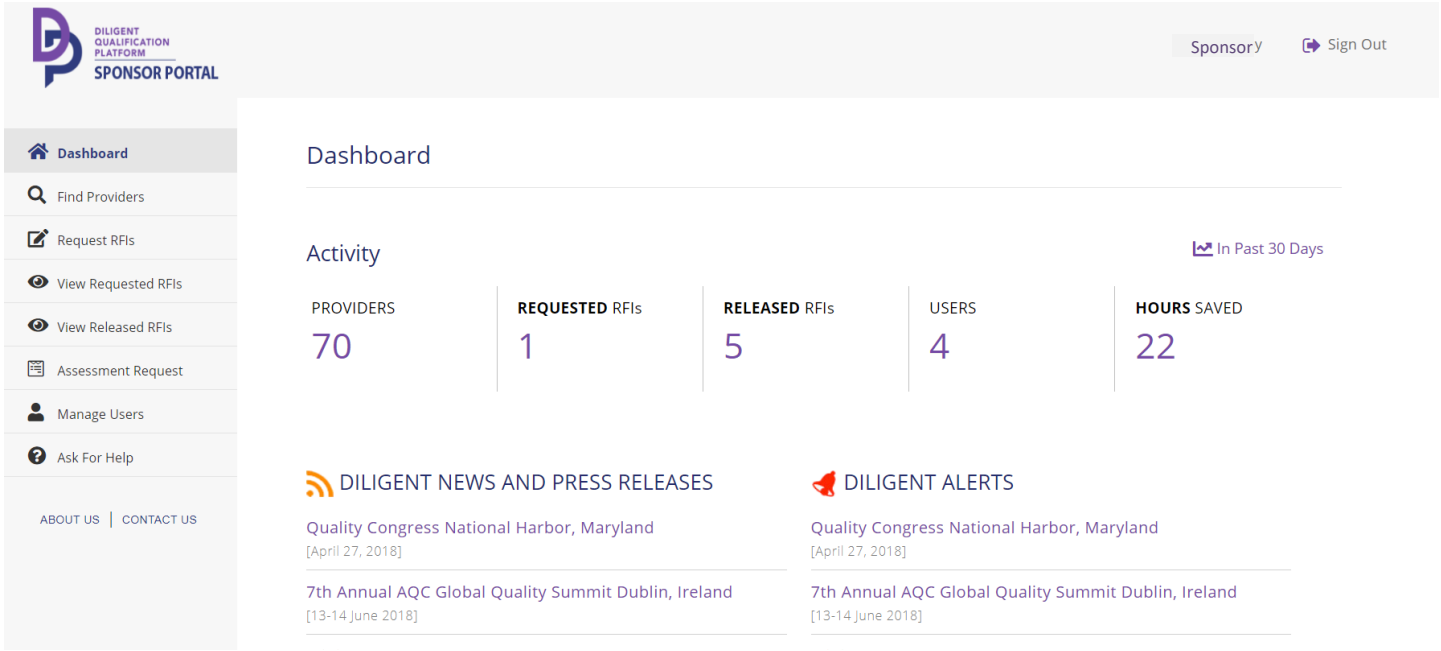
Diligent® Qualification Platform



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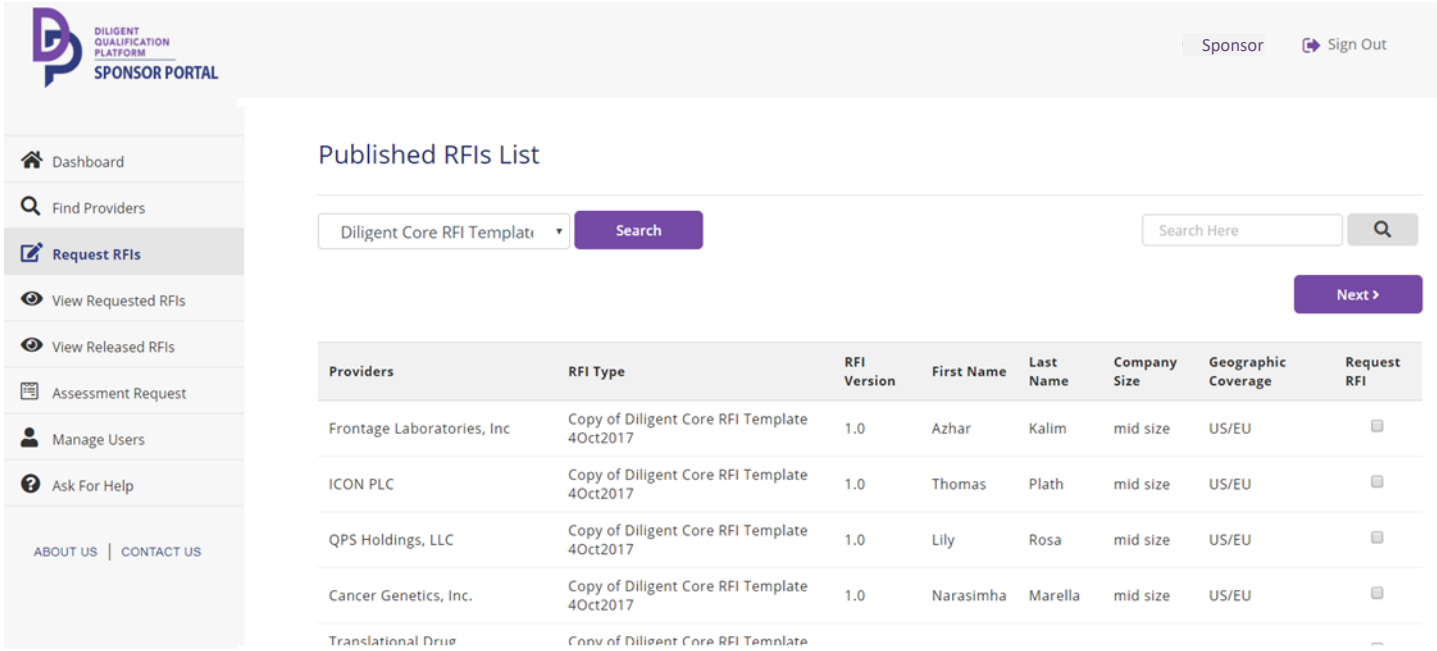

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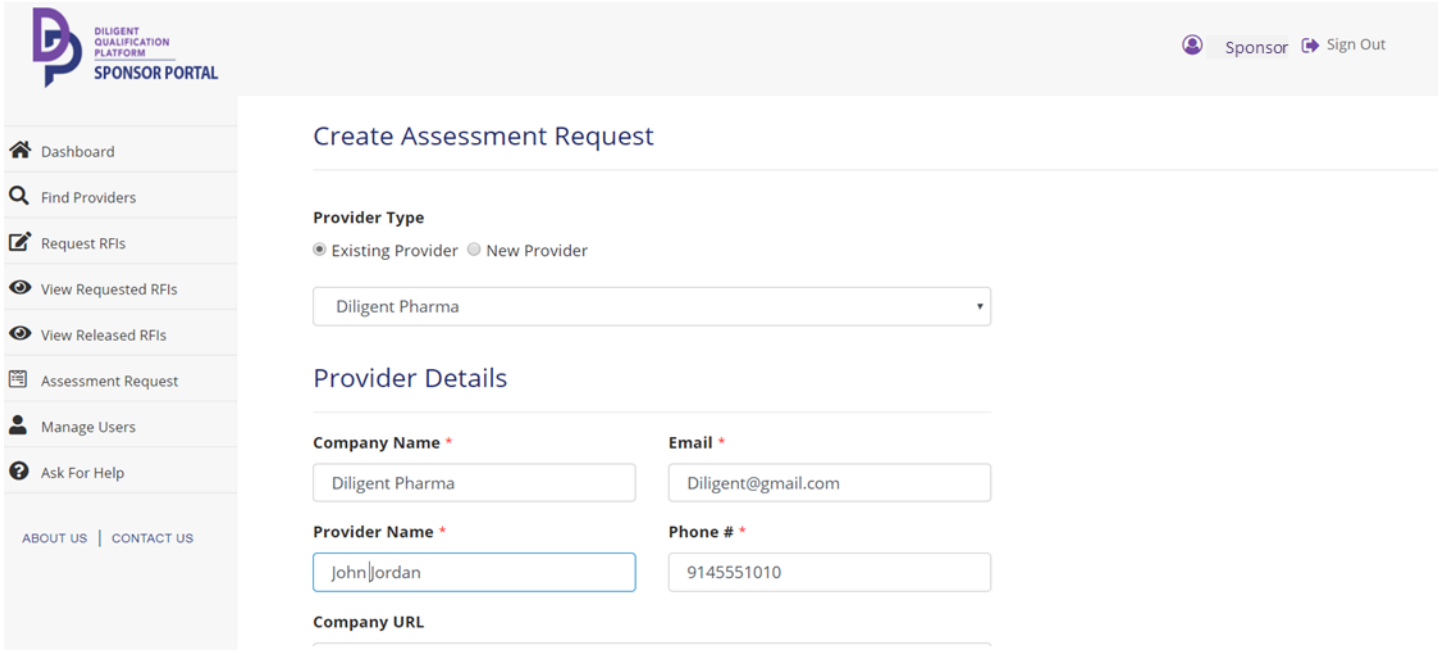

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Questions?

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Upcoming Webinars & Conferences

8th Annual AQC Fall Member Meeting

November 7, 2019 | Seattle, WA

[WEBINAR] AQC Knowledge Center Monthly Demo

November 12, 2019 | 11:00am – 12:00pm EST

ExL's Virtual Clinical Trials Conference

December 2-3, 2019 | Philadelphia, PA

- Avoca Session: *Collaborative Approaches to Managing Risk and Oversight: Using Standards to Support the Transition from Traditional to Decentralized Trials*

2020 Avoca Quality and Innovation Summit

3-4 June 2020 | Amsterdam

theavocagroup.com/news-events

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Thank You!

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