IRIS Clinical Data Registry: Commercialization
Why is there a commercial opportunity?

Company perspective
Pharma And Medical Device Industries Need Data Across Many Departments Throughout Product’s Life Cycle

<table>
<thead>
<tr>
<th>RESEARCH &amp; DEVELOPMENT</th>
<th>MARKET PLANNING</th>
<th>COMMERCIAL OPERATIONS</th>
<th>MARKET ACCESS</th>
<th>MARKETING</th>
<th>MEDICAL AFFAIRS</th>
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<tbody>
<tr>
<td>• Real world evidence studies</td>
<td>• Patient flow forecasting</td>
<td>• Salesforce planning</td>
<td>• Pricing</td>
<td>• Patient education and engagement</td>
<td>• Patient subset analysis</td>
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<td>• Natural history investigation</td>
<td>• Market tracking</td>
<td>• Salesforce comp</td>
<td>• Reimbursement and access</td>
<td>• Patient reported outcomes</td>
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<td>• Identify unmet medical needs</td>
<td>• Market segmentation</td>
<td>• Marketing science</td>
<td>• Payer budget impact</td>
<td>• Real world outcomes</td>
<td>• Pharmacovigilance</td>
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<td>• Therapeutic targeting</td>
<td>• Competitive intelligence</td>
<td>• Marketing analytics</td>
<td>• Health economics and outcomes research (HEOR)</td>
<td>• Cost effectiveness analysis</td>
<td>• Safety signal detection</td>
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<td>• Targeted product profile design</td>
<td>• Current treatment patterns</td>
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<td>• Real world outcomes</td>
<td>• Compliance support</td>
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<td>• Clinical trials:</td>
<td>• Geographic variations</td>
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<td>− Site identification</td>
<td>• Payment patterns</td>
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<td>− Patient screening</td>
<td>• Comorbidities</td>
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<td>− Patient enrollment</td>
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<td>− Patient remote monitoring</td>
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<td>− Site management</td>
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Traditional Healthcare Data Sets Have Significant Limitations In Their Use To Enhance Patient Care

**Claims data** says what has been done, but not why. It also does not necessarily indicate disease stage or severity.

**Script data** says what was prescribed, not impact of the prescription and side-effects.

**EHR data** provides context and comprehensiveness when understanding the patient, but data is highly fragmented, and curation is an issue.

Enhanced specialty society registries offer a solution.
The Pharmaceutical Industry Is Expanding Use Of Real World Evidence Across Applications

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</table>

- Trial Design
- Patient Recruitment
- Product profile design
- Comp. Effectiveness
- Cost Effectiveness
- Product Utilization
- Disease/tx understanding
- Market access/pricing
- Market research
- Physician marketing
- Business Development
- Competitive Intel
- Customer solutions
- Safety signals
- Active safety monitoring

Not using RWE

Using RWE

Pharma Company

Why registry commercialization for societies?

- Financial
  - Partial relief from development and run costs as commercial partner takes on some of those costs
  - Barrier to entry for pure for-profit operations

- Access to analytic platforms for non-commercial purposes
  - Science
  - Policy
  - Practice management

- Clinical Trials
  - Pt benefit
  - Member benefit
Principles of a commercialization deal

- Society owns registry; licenses for commercial use
- Licensure generally permanent: necessary for investment
- Terms of license consistent with mission and principles of society with regard to commercial partners, types of contracts, use of data, privacy, etc
  - Industry just gets deidentified, aggregated curated data; no ‘data cube’!!!!!
- Mechanism established for society input into governance of license
- Commercial partner contractual obligation to develop value tools for members
Several Companies With Experience in Commercializing Clinical Data Sets

- OPTUM
- Verana Health
- Concerto HealthAI
- IQVIA
- flatiron
Accelerate healthcare innovation with cutting-edge data insights

Verana Health enables life science companies to make informed decisions using real-world data from the world's largest clinical specialty database

LEARN MORE ➔
Why Verana?

• Healthcare data mission
• Infrastructure in place
• Outstanding capital partners with nonprofit experience
  o Capitalists—but with philanthropic bent
• Ophthalmologist-physician leadership
• Understanding of society imperatives regarding data quality, privacy, trust
• Desire to grow, lead, and manage—not just churn
Verana: Building a Unique Value Platform For Providers, Patients, and Life Science Companies Alike

- **Data Ingestion** (01)
  - Ingest and organize massive volumes of data

- **Data Analysis** (02)
  - Automate querying through high frequency technology platform

- **Data Conversion** (03)
  - Convert real world data to real world evidence

- **Academic Research** (04)
  - Provide real world evidence to academic research constituents

- **Physician Software** (06)
  - Develop software and analytics for physician practices

- **Regulatory Reporting** (05)
  - Provide regulatory reporting for physician practices

**Innovative therapies brought to market -- accelerated**

**Inclusion in trials of interest**

**The Patient**
Verana Bridges Clinical Practice and Research Opportunities to Benefit Society Members

**PHYSICIAN BENEFITS**

- **FINANCIAL RETURNS**
  MACRA reporting to CMS provides a direct financial benefit to participating physicians

- **ACADEMIC RESEARCH**
  Physicians can access database and analytic capabilities for academic research and connect with industry to engage in clinical studies

- **MEMBER VALUE TOOLS**
  Development of member value tools offer physicians the opportunity to enhance practice efficiencies and patient outcomes with software applications

**MEMBER VALUE TOOLS**

- **OUTCOMES TRACKER**
  Analyzes longitudinal outcomes of aggregated practice patients to understand treatment options

- **CLINICAL TRIAL RECRUITMENT**
  Enables physicians to identify and participate in trials with high enrollment potential and efficiently recruit patients with a curated practice-specific patient list

- **TREATMENT TRACKER**
  Compares treatment patterns to regional and national scale for specific therapies over time
Registries are VERY complex beasts to operate

**Partnership Allows Society To Focus On Research & Enrollment Growth**

### Verana Focuses On

<table>
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<tr>
<th>Support Relationship With Data Ingestion Partner</th>
<th>Analytics Platform</th>
<th>New Product Development</th>
<th>Commercialization</th>
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<tr>
<td>• Improve quality of the registry data</td>
<td>• Reduce data lag</td>
<td>• Recurring revenue based products for market trend or clinical journey analysis</td>
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<tr>
<td>• Reduce data lag</td>
<td>• Scalable, reliable and secure data stores</td>
<td>• Clinical trial products</td>
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<td>• Support institutional expansion with EPIC installations</td>
<td>• Support for high-performance queries</td>
<td>• Novel membership tools</td>
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<td>• Configurable data ingestion and analytics pipelines</td>
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<td>• Specialized algorithms</td>
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<td>• Analytics automation</td>
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<td></td>
<td>• Develop and deploy commercial plan focused initially on life sciences channel</td>
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<td>• Expert team to implement plan and reach sales objectives</td>
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Technology Platform Transforms Big Data into Deep Insights
So what does all this mean for the future?

• Allows ophthalmology to afford a society-wide clinical data registry
  o Academy run costs down to about $1-2MM/yr

• Provides infinite annual ROI for each ophthalmologist using it for MIPS reporting (value about $25K/yr/physician

• Provides method to review and trend performance against measures

• Allows ophthalmologist to ‘check the box’ with payers as to participation in quality improvement programs and population health initiatives

• Enhance clinical trial participation

• Future practice management tools

• Clinical and population research tool; health policy tool
Newest Development

• American Academy of Neurology joins Verana for commercialization of its AXON Clinical Data Registry

• New capital; company growth
Investors

Google Ventures

GE Ventures

biomATICS CAPITAL

LAGUNITA BIOSCIENCES

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