Expedite Research Timelines, Optimize Research Design, and Improve Patient Outcomes Using a New Source of Research-Grade Data

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The development of technology and comprehensive access to electronic medical records (EMR), claims, and patient reported outcomes (PRO) data has swiftly changed how we assess clinical research today. Benchmarking, clinical trial recruitment, and real-world evidence (RWE) increasingly rely on real-world data (RWD) for important decision making by physicians, pharmaceutical companies, and regulators, making these assets paramount in the improvement of patient health outcomes.

However, the uptake in technology that makes access to patients' data readily accessible is biased towards those institutions with advanced IT and research capabilities. This limitation leads to overrepresentation by institutions such as academic medical centers (AMCs) and a lack of diversity in available patient data, as AMCs are most often located in urban areas, leaving the community and rural hospitals at a disadvantage. Additionally, when analyzed in isolation, the data collected from more major sources of research does not capture the entirety of the patient journey and may lead to inaccurate conclusions. Furthermore, this isolation exposes other disparities in patient care and clinical research, including equity and inclusion in clinical research studies, true end-to-end clinical trial solutions, and patient-centered outcomes.

Data, Technology, and the Patient Journey

With advances in technology for both the provider and patient and the ability to aggregate disparate data sources, the disparities emerging in recent years shouldn't exist. The RWD ecosystem can address diversity by supplementing data from AMCs with rural sites, community sites, and research-naïve sites.

This data aggregation enables clinical research solutions that swiftly identify and recruit patients through clinician-tested technology and patient-tested apps. As a result, research-naïve sites can focus on patient care and participate in clinical trials, then follow this patient journey through and post-clinical trial to provide RWE that supports new strategies to improve patient health outcomes.

Through existing relationships with healthcare systems, Health Catalyst is uniquely positioned to address these industry challenges.

Bringing a More Comprehensive Solution to the Market

Health Catalyst is committed to supporting life sciences organizations in expediting research timelines, optimizing research design, and improving patient outcomes through access to a new source of research-grade data, rapid cohort creation, automated patient engagement, and augmented intelligence.

Tap into a new source of research-grade data

Touchstone® provides customers with access to a net new source of diverse, patient-level, research-grade data across 30% of healthcare organizations. This includes data from outside of traditional AMCs, including HCOs and community hospitals. Touchstone data includes demographic, clinical, claims, and registry data, among other sources, unlocking the ability for customers to support more use cases with the data.

These sources provide geographically and demographically diverse data that is more representative of healthcare across the United States. This greater diversity of sources enables better representation in clinical research and trials, leading to better health equity and patient outcomes. Furthermore, Health Catalyst's interactive healthcare system relationships enable the ability to curate unique data needs for customers that may be missing from existing data sets the organization has used outside of Health Catalyst.

Recognize a faster time-to-value for research activities

The Touchstone Match™ solution is an AI-powered, RWD solution, that puts a new source of diverse, research-grade clinical data at researchers' fingertips, improving decision making and accelerating the success of the clinical development life cycle.

Touchstone Match provides customers with the ability to:

- Implement one user-friendly solution for feasibility research, real-world data and trial startup for research-naïve sites.
- Build and run queries to quickly identify patient cohorts.
- Quickly drill into patient-level and longitudinal data, providing novel insights into known populations.
- Optimize protocol design with analytics, including advanced AI and ML capabilities for rare and unstructured insights.
- Recognize a more accurate feasibility assessment, reduced recruitment timeline, and accelerated first patient in (FPI).

Implement AI-driven insights to power research use cases

Healthcare.AI™ Expert Services support the effective use of AI in research use cases. These professional services also include access to data scientists and subject matter experts who can review data sets and evaluate the quality of a query and underlying data, as well as complete feasibility assessments on the behalf of customers.

Establish new industry connections and collaborations

The Health Catalyst Research Network™ provides customers with the opportunity to expand industry connections and collaborations across providers, biopharma companies and contract research organizations (CROs). The Health Catalyst Research Network consists of a carefully curated, national data ecosystem for thought leadership and mutual knowledge exchange to transform care delivery and drug development research through next-gen insights.

Looking Forward: What's Next

Providing customers with access to a new source of data and supporting the identification of patients for clinical research is just the first step. Health Catalyst continues to look for new ways to solve the industry's biggest challenges.

Health Catalyst continues to onboard existing customers into the Health Catalyst Research Network, growing the data available within Touchstone. In addition to onboarding these existing customers, Health Catalyst is actively expanding industry relationships to include new customers.

To address the industry challenge of expediting the patient recruitment process, Health Catalyst is integrating existing research solutions that will enable real-time, automated, clinical trial patient recruitment.

About the Authors

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Liz Eldridge joined Health Catalyst in August 2019 from Kaiser Permanente's Division of Research (KP-DOR), where she worked with electronic medical record data for population health research as a statistical programmer in KP-DOR's Cancer Research Section. Prior to Kaiser Permanente, Liz worked in clinical trials in oncology in both clinical and academic settings at the Yale Cancer Center and University of Vermont College of Medicine Cancer Center, as well as with the Pharmacoepidemiology in Multiple Sclerosis Research Group at the University of British Columbia Hospital. Liz holds an MPH in Chronic Disease Epidemiology from Yale's School of Public Health.

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Nicole Bailey joined Health Catalyst in September 2021 from Parexel, where she served as the Global Head of Real-World Data Assets, leading a team to leverage healthcare data to support clinical research, informatics, clinical trials, and drug development activities. Prior to Parexel, Nicole was the Manager of Epidemiology and Clinical Trial Services, responsible for developing novel methodology for real-world data studies in post-market drug and device research, as well as producing real-world evidence, to understand and improve clinical understanding of patient outcomes. Nicole holds an MPH in Epidemiology from the University of Utah School of Medicine, Division of Public Health.