Analytics of Healthcare Things

The Next Generation of Real-World Data

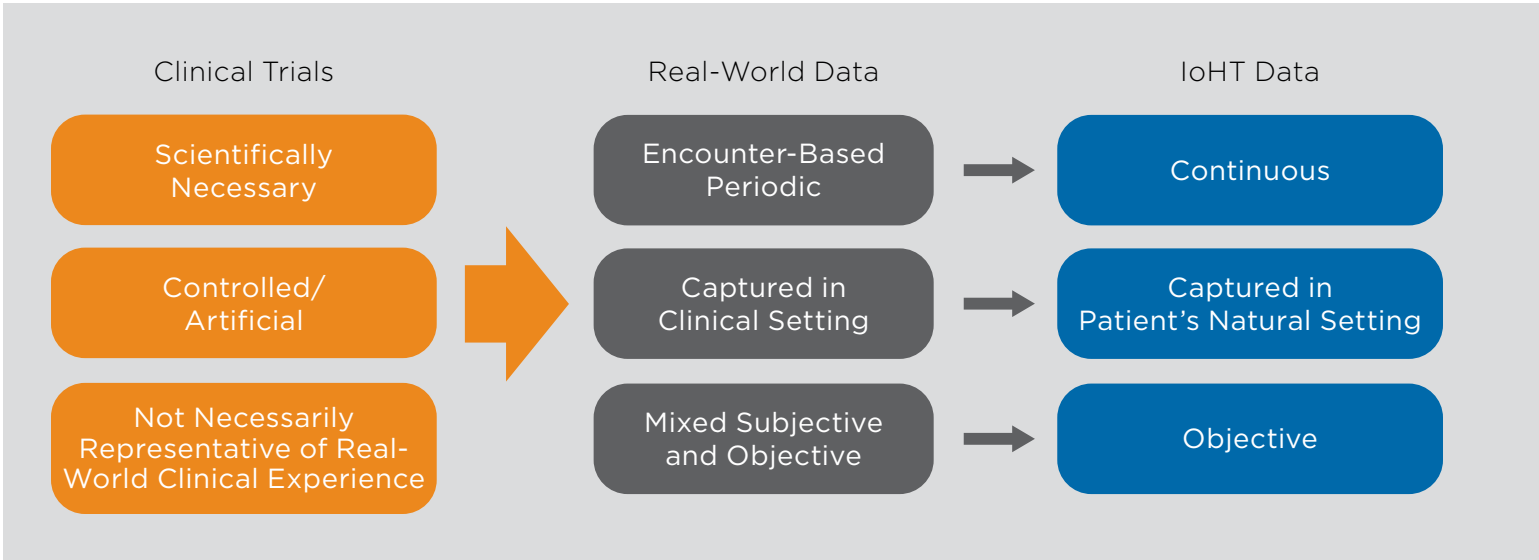
There is a growing interest among pharmaceutical, biotech, and device companies to engage data generated from IoT. Currently there's a lot of talk about IoT in healthcare, but not much has been used for practical health management purposes. Teradata is helping change that paradigm by being the first to recognize data from IoT as the next generation of real-world data.

Randomized, controlled trials have long been considered the gold standard for establishing scientific, clinical, and safety data to gain regulatory approval and market adoption. But, due to their focus on specific measures, real-world evidence (RWE) trials, whether phase I-III or phase IV post-marketing, are receiving growing interest from the FDA, the healthcare research community, as well as payers. As such, real-world data (RWD) has emerged as a critical component of RWE in clinical development and market access plans. This reflects a growing demand on the part of payers, regulatory agencies, and providers to demonstrate the value of a new product in *Real-world* settings in order to maximize adoption and reimbursement.

The Next Generation of Real-World Data

Real-world data provides highly valuable and practical insights. But in spite of its undisputed value, RWD has limitations. Today's RWD sources are encounter-based, aka, point-in-time; interaction with a healthcare system is needed to generate data (e.g., a doctor visit generates a claim and an Electronic Medical Record; a laboratory visit generates a lab report). This leaves us blind to what happens between encounters in the healthcare system. Furthermore, encounters generally occur in a clinical setting that may not reflect an actual daily living experience for a patient. Many encounters are subjective interviews, observations, or self reports rather than objective data. Information flow can be slow (even real time is not fast enough in healthcare anymore), resulting in prolonged intervals between findings, actions, and subsequent impact. And useful data that could be transformative cannot currently be captured.

Data from select IoHT can fill the gaps in current RWD for key conditions, carrying greater weight in payer and regulatory decision making, generating greater commercial value.



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Teradata Solutions

Teradata's goal is to combine our extensive core competence and experience in industrial IoT with our deep knowledge of healthcare and life sciences data and analytics to give lift to this new and important area. Our core competencies of data integration, big data, industry expertise, and advanced analytics can remove the current barriers that have limited the adoption of the Internet of Things in healthcare. Our data management and analytics experts can help you integrate IoHT and other data to form a complete picture while handling the massive volumes of live IoHT data (big data on steroids), thereby creating practical and actionable insights through advanced analytics. The result can change current treatment paradigms; reduce unnecessary patient interventions; predict, intercede and prevent; and the most exciting is to create entirely new interventions.

To this end, Teradata has entered the IoT in both healthcare and life sciences by partnering with Reemo, an IoT company that initially operated in a key area of healthcare: the senior care/chronic disease space. Their wearable and SmartHome solution provides configurable, practical help to patients in managing their conditions and lives: controlling their home, patient monitoring, and messaging—making the devices applicable to many additional disease areas.

The data Reemo captures is unique and valuable for targeted conditions, particularly those involving motion and activity. Because data is captured continuously in the patient's natural setting, it can fill current gaps in real-world data and through advanced analytics can lead to new insights and treatment paradigms. Teradata then combines Reemo data with other pertinent data to create integrated analytics that provide deeper insights into population health management.

Reemo is a Samsung partner, and their wearable and home monitoring devices are sold through Best Buy and are installed and supported by the Geek Squad, so they have national scalability.

Pharmaceutical, Biotech, and Medical Device Solutions

Offer	Type of Study	Purpose	How	New Value
Design and conduct a post-market study featuring next-generation real-world data generated from Reemo's IoT wearable and SmartHome devices, as well as Teradata data integration and advanced analytics capabilities.	Marketing, health economics and outcomes research (HEOR), real-world evidence	Create new, superior comparative effectiveness evidence for greater commercial value, increased revenue, and expanded market share	Provide access to Reemo IoT that generates unique data that fills existing gaps or provides data that doesn't currently exist	• Uses a unique next-generation real-world data source that competitors are not yet using • Can yield insights that are new and cannot be replicated without similar data • Demonstrates value where it is currently difficult or can't be done

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