

Recombinant

By **Deloitte**.

Data Trust Clinical data warehouse



Leveraging clinical and administrative data for reporting, analytics, and research can pose significant challenges. Healthcare data is complex and diverse, and is generated in many different and often incompatible systems within a healthcare institution. Combining data from these sources to establish an “integrated source” to serve the requirements of different stakeholders across a healthcare enterprise requires aggregating, transforming, and managing data in compliance with data standards while meeting privacy and security requirements.

The Recombinant Data Trust (“the Data Trust”) is a patient-centric, subject-oriented data warehouse created specifically for clinical and life sciences data, and has been effectively implemented at healthcare organizations across the country. Designed to be deployed in phases, the Data Trust is intended to be adapted to a client’s requirements, with overall architecture and demonstrated technologies that are tailored for projects.

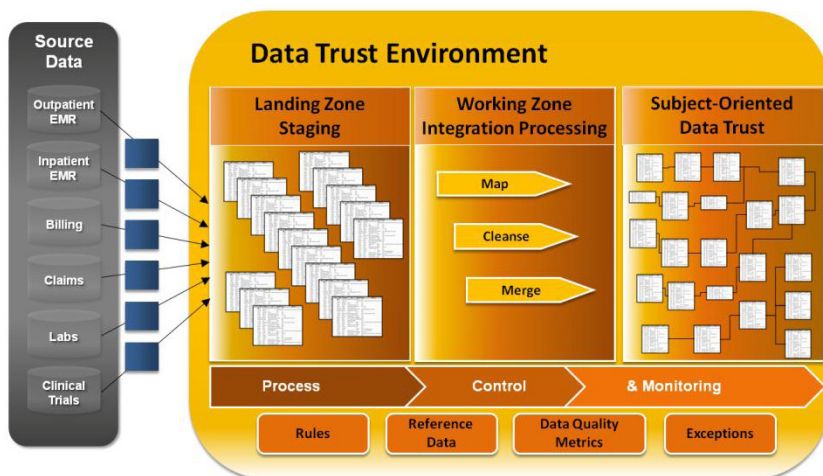
The Data Trust incorporates Recombinant’s experience in secondary uses of clinical data, and reflects our pragmatic approach to helping our clients achieve their goals. Rather than pushing customers into a “once size fits all” product, Recombinant works with its clients to plan and execute Data Trust projects to suit organizations’ individual objectives.

Recombinant clients maintain control and ownership of their data, and are empowered with the tools needed to achieve their goals.

The Data Trust actively manages data for secondary use, rather than simply creating a duplicate archive. Copying data generated by source systems is merely the first step.

The technology of the Data Trust can resolve inconsistencies and duplications generated by the variety of source systems used in healthcare organizations.

Once transformed, clinical and administrative data, metadata, and master data are maintained in the subject-oriented data warehouse to be used for analytic and reporting applications.



 Load programs

The Data Trust transforms and manages healthcare data to create an efficient data warehouse for secondary use.

Process control and monitoring, along with effective governance, can provide the quality, security, compliance, and accuracy of data in the Data Trust.

As a result of taking data through these distinct steps, the Data Trust can become an “integrated source,” with consistent, reliable data for users across the enterprise.

The Recombinant Data Trust includes a broad set of tools to build an effective clinical data warehouse to meet the growing demands of external reporting requirements, to fuel the sophisticated analytics needed for quality reporting and performance improvement, and to conduct innovative translational research.

Subject Area Model

The Subject Area Model provides the framework for the data architecture, as well as context for defining governance and for planning and coordinating implementation activities.

Clinical data schema

Recombinant's Data Trust Clinical Data Schema is a star schema designed for aggregating and managing data from a broad range of source systems. Unlike schemas used by Electronic Medical Records (EMRs) and other patient care systems, the Data Trust schema is designed specifically to provide analytics and reporting across populations.

Source adapters

Recombinant offers standard adapters to load data from widely used systems like EMRs, scheduling, claims, billing, labs, from common communication systems, and from scientific/research platforms.

Recombinant has deep clinical data warehousing experience in developing custom adapters to address specialized source system and datamart requirements.

Data transformation algorithms

Recombinant provides a combination of standard and custom algorithms to deduplicate, cleanse, normalize, and match data. Transformations can range from simple standardization of units of measure, to complex application of standard reference ontologies to ad-hoc coding systems.

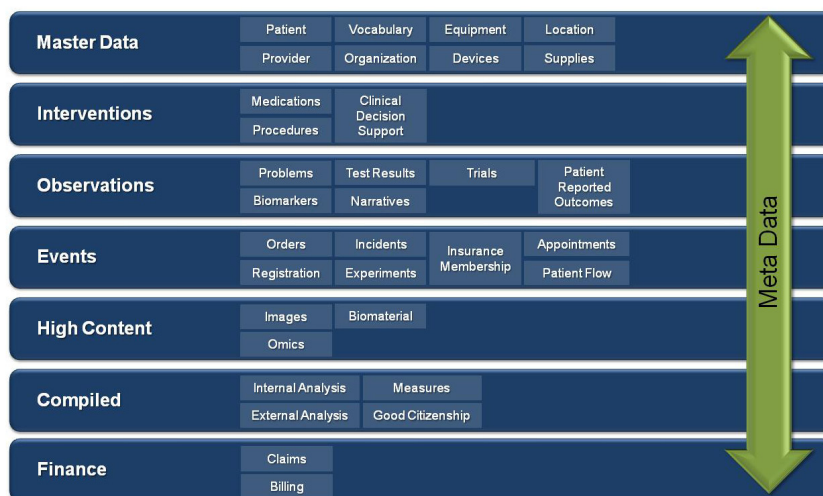
Metadata and data security

The Data Trust metadata structure provides for monitoring and managing transformation logic, data quality, and data heritage.

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A multi-tiered data security model offers developers a framework for limiting access to data to comply with HIPAA and other privacy and security requirements.



Benefits of the Data Trust

The Recombinant Data Trust is a demonstrated platform for creating a single repository of high-value clinical data for secondary use. The Data Trust can provide:

- Improved consistency of analysis and reporting through an “integrated source” of data serving requirements across the enterprise.
- Enhanced operational efficiency by reducing demands for reporting and data retrieval directly from EMRs and other patient care systems, and leveraging a single Extract, Transform, Load (ETL) process and data warehouse infrastructure for multiple requirements.
- Greater data availability can improve time and cost to production for new analytical and reporting projects, and can allow analysts, researchers, and staff to focus on understanding information, rather than searching and negotiating for data.
- Improved compliance through privacy and security requirements with greater ability to control and review access and use of Protected Health Information (PHI).

For more information about the Data Trust and professional services for planning and implementing a clinical data warehouse, contact Recombinant at results@recomdata.com or +1 617 243 3700.