# b.well Data Refinery

The Infrastructure that Turns Crude Data into Intelligence

Set the standard with complete, real-time, and fully normalized data, engineered to power AI models, operationalize workflows, inform advanced analytics, and accelerate quality and care gap closure initiatives. Through a rigorous 13-step transformation process, the **b.well Data Refinery** converts fragmented, transactional data into a trusted, longitudinal health record that's ready for real-time decision-making across clinical, operational, and analytical environments.
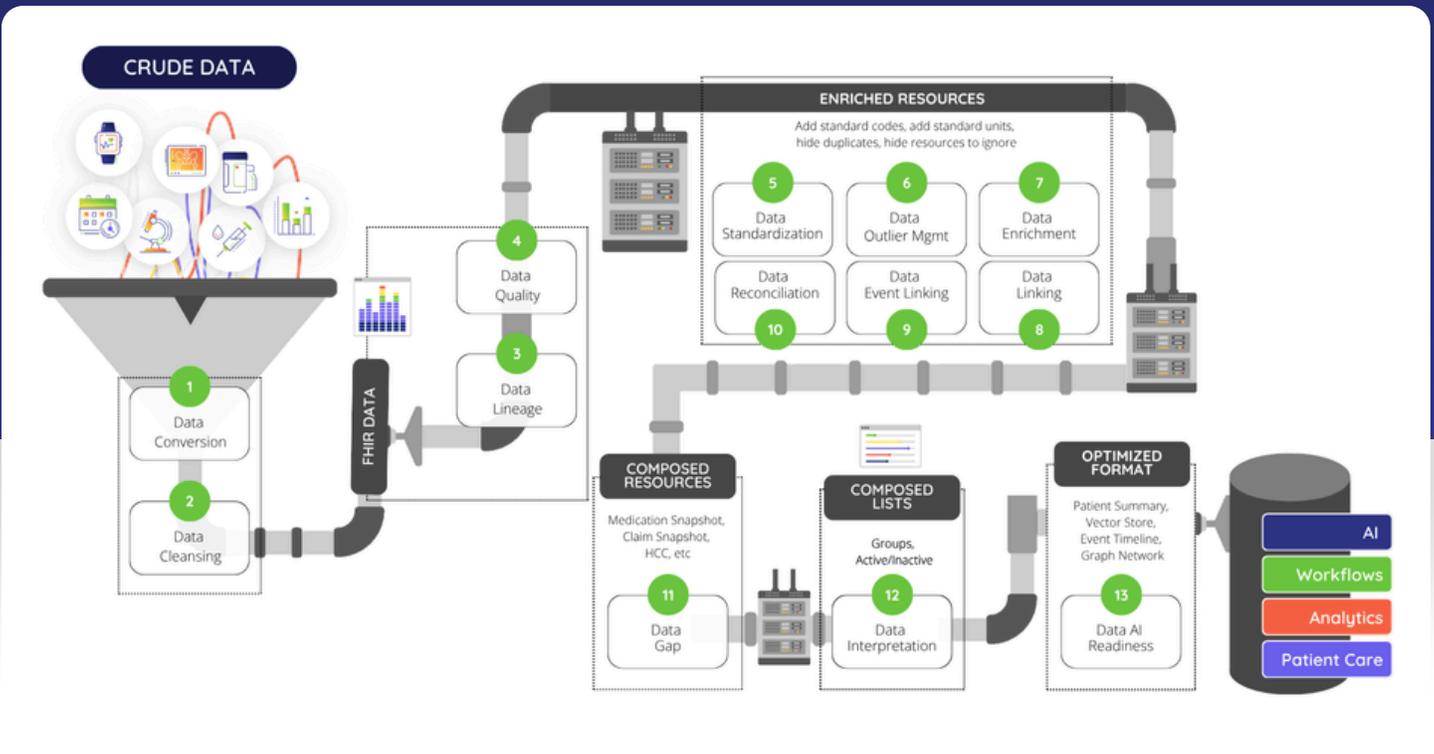
1 Data Conversion: Transforms multiple input formats (X12, CSV, CCDA, HL7, JSON, etc.) into canonical FHIR.

2 Data Cleansing: Fixes errors, normalizes codes, and resolves inconsistent formats.

3 Data Lineage: Tracks data back to its original source and maintains full provenance.

4 Data Quality: Automates quality checks to determine whether data should be loaded, skipped, or flagged.

5 Data Standardization: Applies US Core, CARIN, and other standards to ensure consistency across datasets.

6 Data Outlier Management: Identifies and addresses extreme or improbable values to ensure data reliability and analytical accuracy.

7 Data Enrichment: Adds classifications, consumer-friendly descriptions, and contextual references.

8 Data Linking: Uses probabilistic matching to connect records across sources to the correct person.

9 Data Event Linking: Identifies unique healthcare events (e.g., a medication fill) across multiple data sets.

10 Data Reconciliation: Removes duplicates and merges records to maintain a single accurate event view.

11 Data Gap: Flags missing data, prompts for additional sources, and tags metadata to infer conditions without fabricating.

12 Data Interpretation: Applies rules and ML to tag conditions, cohorts, and measures for real-world use cases.

13 Data AI Readiness: Outputs AI-ready data optimized into patient summaries, vector stores, event timelines, and graph networks.