



Cohort Assistant (in Private Preview)

Overview

Accelerate patient cohort creation and insight from complex RWD with AI-powered semantic capabilities and analytics.

Cohort Assistant is an AI-driven application that enables life science teams to identify, refine, and analyze patient cohorts directly from real-world data (RWD) without writing code or relying on technical intermediaries.

Built within the Wayfinder environment, it combines natural language processing, medical ontology mapping, and semantic search to translate complex cohort criteria into accurate, data-ready definitions.

By automating the most time-consuming aspects of data wrangling and cohort logic creation, Cohort Assistant helps teams move from cohort design to insight with greater speed, transparency, and confidence.

Key Capabilities and Features

- **No-Code Cohort Building:** Intuitive natural language interface that allows users to define, refine, and generate cohorts from start to finish without coding.
- **Validated Domain-Specific Models and Agents:** Purpose-built AI agents extract demographics, conditions, drugs, procedures, labs, and vitals from user queries and convert them into standardized medical codes and SQL logic.
- **Conversational Follow-Up Analysis:** Built-in AI chatbot enables follow-up questions and analyses in natural language, making post-cohort exploration accessible to both technical and non-technical users.

- **Human-in-the-Loop Workflow:** Users remain in control at key points in the process, reviewing and approving intermediate results to ensure accuracy and contextual relevance.
- **Transparency and Explainability:** Every step, from natural language input to query logic, is visible to the user, including intermediate results and AI reasoning.
- **Flexible Access:** Available through an interactive user interface or programmatically via API or function calls for integration into external workflows.
- **Cohort Management Tools:** Users can save, edit, combine, and delete cohorts. All cohort definitions and underlying SQL queries are automatically versioned and stored.
- **Wayfinder-Ready Deployment:** Deployable as code directly into a customer's Wayfinder instance for seamless use within existing environments.
- **Centralized Governance:** Models, data, and APIs are managed securely under centralized governance to ensure consistency, compliance, and control across all projects.

Constraints

- **Deployment Environment:** The user interface must be initiated from a Wayfinder notebook by the user.
- **Data Compatibility:** Cohort Assistant currently supports Kythera's data models for medical (Mx), pharmacy (Rx), and EHR data.
- **Vocabulary Scope:** Natural language mapping is limited to the medical vocabularies supported within Kythera's data models for Mx, Rx, and EHR.
- **Cohort Logic Complexity:** Only coarse-grained cohort criteria are supported. Temporal, conditional, and complex combination logic are not yet available.

Key Benefits

- **Improved Accuracy:** Validated domain-specific models deliver higher-quality, reproducible cohort definitions.
- **Faster Time to Insight:** Streamlined, no-code workflows reduce the time required to move from cohort specification to analysis.
- **Reduced Technical Bottlenecks:** Non-technical teams can build and analyze cohorts independently, minimizing reliance on data engineering resources.
- **Full Transparency and Provenance:** Each cohort definition includes clear lineage, logic, and version history to ensure interpretability and auditability across studies.