ATLAS: User Input For Community Development

OHDSI Community Call
13 June 2023
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• What is ATLAS – Jack / Anthony
• ATLAS Working Group & Recent Developments - Anthony
• What is coming up (v2.14) – Chris
• Breakouts: User Input For Community Development
What is ATLAS

Data source exploration
- Characterizing database
- High-level record counts

Building cohorts
- Concept mapping
- Concept set
- Cohort building

Descriptive statistics
- Cohort characterization
- Incidence rates
- Treatment pathways

Designing advanced analytics
- Population level estimation
- Patient level prediction
Example of ATLAS components

A concept is a record of a clinical event.

Cohort is a set of persons who satisfy an inclusion criteria for a period of time.

Concept: Essential hypertension
- Concept ID: 320128

Concept set: Hypertension
- Concept ID: 320128
- Concept ID: 4049389
- Concept ID: 4322024

EHDEN Academy has courses on ATLAS and setting up the ATLAS infrastructure in addition to other OHDSI / EHDEN courses.
The ATLAS demonstration site is publicly available to the community.

https://atlas-demo.ohdsi.org/
ATLAS Technology Overview

**ATLAS**
Web application developed with **JavaScript**, CSS, HTML. Provides the visual elements in the browser.

**WebAPI**
Web services developed with **Java**. Provides the “plumbing” for Atlas.
Atlas Working Group Mission Statement

• The ATLAS workgroup will provide a forum for the OHDSI community of developers that are interested in improving the open-source software solutions: ATLAS & WebAPI. These tools aim to provide capabilities to design standardized analytics to execute on the OMOP Common Data Model.
ATLAS Working Group Meeting Schedule

• Monthly ATLAS WG Meetings 1st **Tuesday** of the month at 9AM EST with the following aims
  – Highlight new features being built in the community
  – Provide updates on upcoming releases

• Weekly Developer Meetings- **every Tuesday, 9AM EST**
  – Review open pull requests for Atlas/WebAPI
  – Triage/Review issues for upcoming releases

• Next Monthly Meeting falls on **11 July 2023**
1. Objective: Release ATLAS/WebAPI v2.13
   - Complete the development and testing of existing issues
   - Target delivery: 1Q2023

2. Objective: After v2.13 release, establish and maintain a robust software development plan for ATLAS moving forward
   - Identify candidate features for future ATLAS releases through active solicitation from the OHDSI community and ATLAS users
     - Candidate features for the next release (i.e. ATLAS v2.14) will be prioritized and selected by product owners (Patrick Ryan/Greg Klebanov)
     - Project Managers (Anthony Sena/Alexey Manoylenko) will identify developers to lead the design and implementation.
     - Developers will produce design specification document for each feature and the Technical Lead (Chris Knoll) will review and approve prior to development.
     - Once all features are implemented, Project Managers will coordinate testing across 3 independent sites: Odysseus, Janssen, and public OHDSI-test instance
     - Once Product owners approve a release, Project Managers will then communicate release and documentation to the OHDSI community
Recent ATLAS Development Activities

• Examples from v2.13 release
  – Cohort SQL rendering
  – Generation user-interface standardization
  – Data source selection for concept counts
  – Concept Set Preview

What is coming up (ATLAS v2.14)

– Advanced Concept Set Search (via SOLR)
– Better Spark support
– Filter assets to those with READ permissions
– OpenID configuration parameters
– Person Counts for source concepts
– Updated Java dependencies to prepare for JDK 17+
– Lighter version of CIRCE for CRAN
– Planning phase: extend Reusable functionality
Breakouts: User Input For Community Development

• Do you have Atlas installed and available in your environment?
• Barriers to using Atlas?
• Ideas & resources for improvement of the platform?
What comes next?

- Gather feedback from this session and define the scope of the next ATLAS release
- Work on the design of new features and estimate the development timeline
- Develop, Test, Release
Thank You!