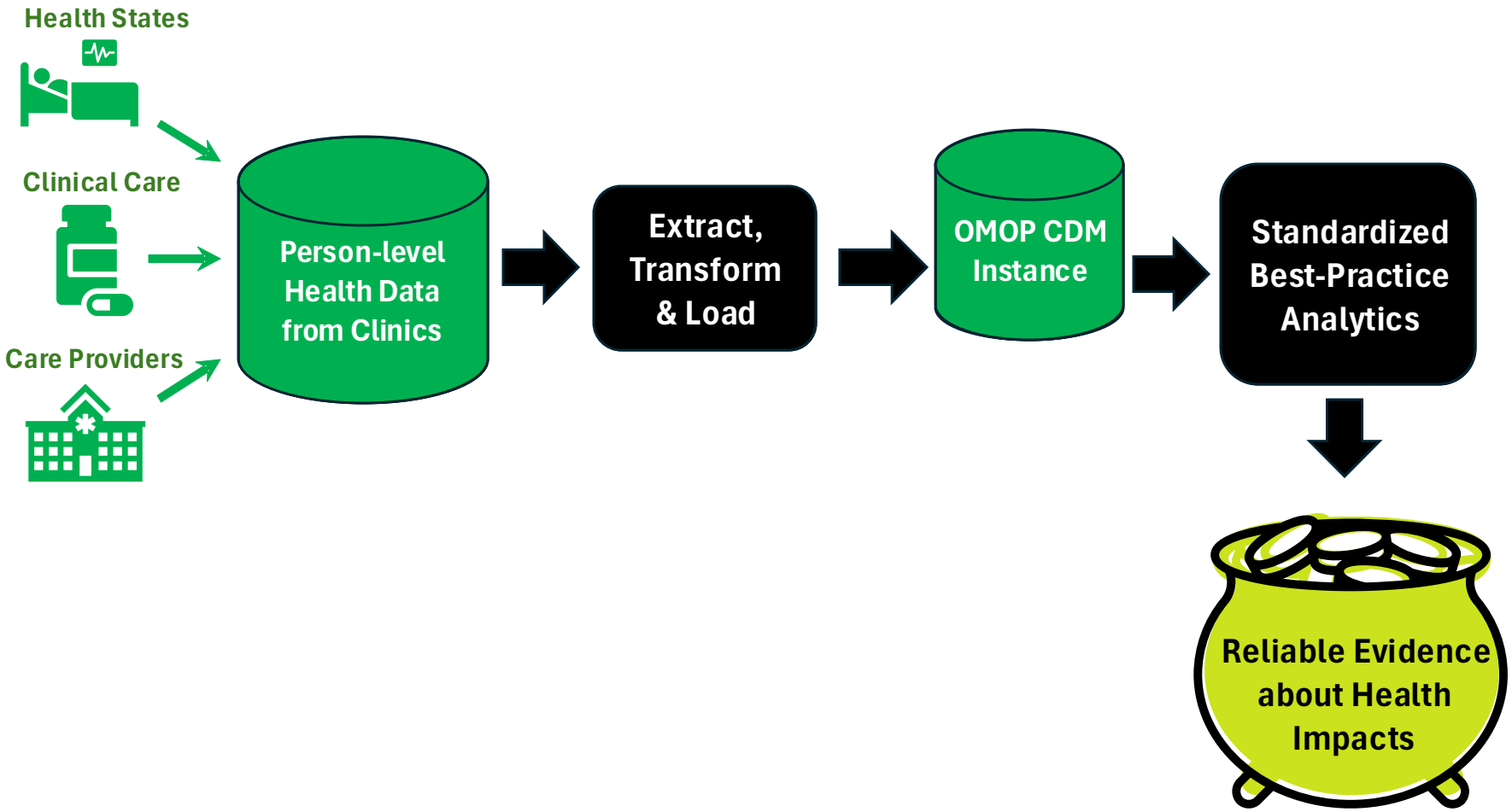
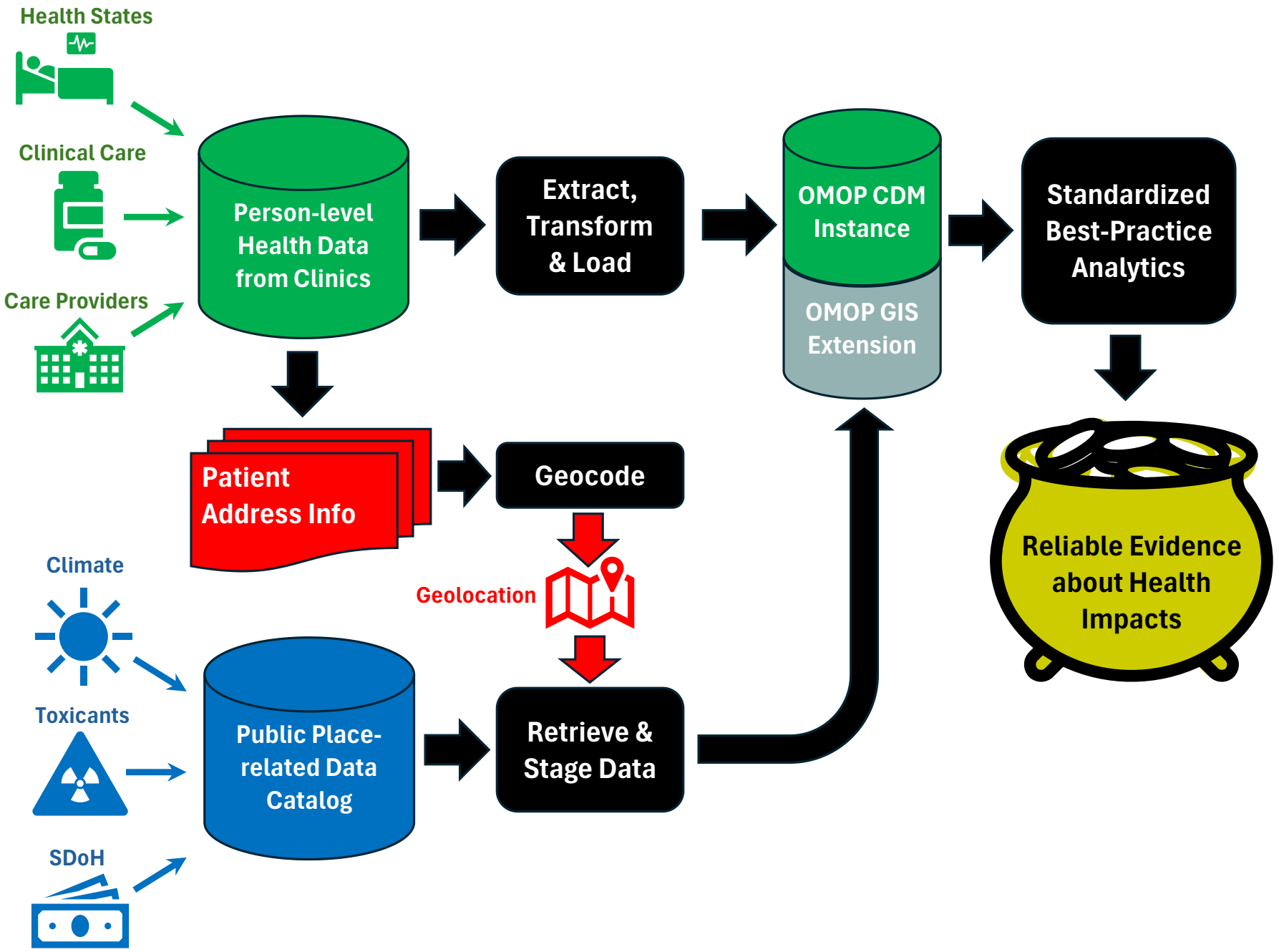
OHDSI GIS Workgroup

GIS Workgroup: Mission

Improve the health of populations by generating reliable evidence from integrated geospatial and person-level health data.

- Climate
- Toxicants
- Regional policies
- Social determinants of health
- …


Health States
Clinical Care
Care Providers
Person-level Health Data from Clinics
Extract, Transform & Load
OMOP CDM Instance
Standardized Best-Practice Analytics
Reliable Evidence about Health Impacts


Health States
Clinical Care
Care Providers
Person-level Health Data from Clinics
Extract, Transform & Load
OMOP CDM Instance
OMOP GIS Extension
Standardized Best-Practice Analytics
Patient Address Info
Geocode
Geolocation
Reliable Evidence about Health Impacts
Climate
Toxicants
SDoH
Public Place-related Data Catalog
Retrieve & Stage Data

GIS Workgroup: 2024 Accomplishments

- **Released GIS Extension to OMOP Schema**
  - https://ohdsi.github.io/GIS
- **Released draft vocabulary for standard representation of geospatial attributes that affect health:** https://github.com/OHDSI/GIS/tree/main/vocabularies
  - GIS Vocabulary
  - Exposome Vocabulary
  - SDoH Vocuablary
- Tested GAIA Core schema and code for ETLing geospatial data
- Developed flexible data cataloging approach
- Developed flexible geocoding approach
- Transitioned to a flexible use case-driven management structure
- Developed roadmaps for key infrastructure components

GIS Workgroup: 2025 Goals Infrastructure

- Roadmap for GAIA
- Roadmap for vocabulary
- Roadmap for cataloging
- Roadmap for geocoding
- Roadmap for containerization

GIS Workgroup: Use cases

- Climate and HIV mortality in Africa (Inspire)
- Temperature and health (Boston area test case for vocab validation)
- SDoH and intensive care (Bridge2AI)
- Geocoding accuracy (CLAD)
- Anaphalaxis incidence linkage to geospatial exposures (Linying Zhang)
- Highway bufferzone association with pulmonary outcomes
- Various informatics milestones relate to the toolchain

GIS Workgroup: Meeting times

- The primary meeting takes place on Fridays at 10 a.m. Eastern US