

Eye Care and Vision Research Workgroup

2/21/23

Purpose

- Advance development and implementation of data standards in ophthalmology, optometry, and the vision sciences
- Support studies using observational ophthalmic data for generating insights to improve health and vision outcomes

Accomplishments

- Conducted gap analysis of two large, well-known EHR systems for eye care (Epic and Cerner) to examine where OMOP standards are lacking for commonly used data elements
- Organized in-person meetings at major conferences, including annual meetings of the American Academy of Ophthalmology (AAO) and the Association for Research in Vision and Ophthalmology (ARVO)
- Organized two subgroups focused on subspecialty domain areas (glaucoma and retina)
- Began collaboration with Verana Health for OMOP transformation of the AAO Intelligent Research In Sight (IRIS) Registry, a large nationwide registry of eye care data
- Partnered with the NIH Bridge2AI Initiative to map data elements that will be included in a new Data Generation Project with ophthalmic components (AI-READI)

OKRs for 2023

Objective 1: Formulate data standards development around specific use cases with clear applications for eye care practitioners and vision scientists

Key Result 1: Solicit a defined use case from the glaucoma subgroup (Q1 2023)

Key Result 2: Solicit a defined use case from the retina subgroup (Q1 2023)

Key Result 3: Map ophthalmic data collected for AI-READI Bridge2AI project (Q1 2023)

Objective 2: Develop a clear plan for how visual acuity data should be structured, standardized, and converted to OMOP

Key Result 1: Engage workgroup members to summarize information about visual acuity and key challenges/considerations (Q1 2023)

Key Result 2: Present information from Key Result 1 and generate questions for the CDM workgroup to discuss options for concept mapping (i.e. use of an extension table?) and conventions for transforming recorded visual acuity values into standardized measurements (Q1 2023)

Key Result 3: Submit requests for updated visual acuity standards based on the discussion with the CDM workgroup (Q2 2023)

Key Result 4: Trial ETL processes at 3 institutions for visual acuity data. (Q4 2023)